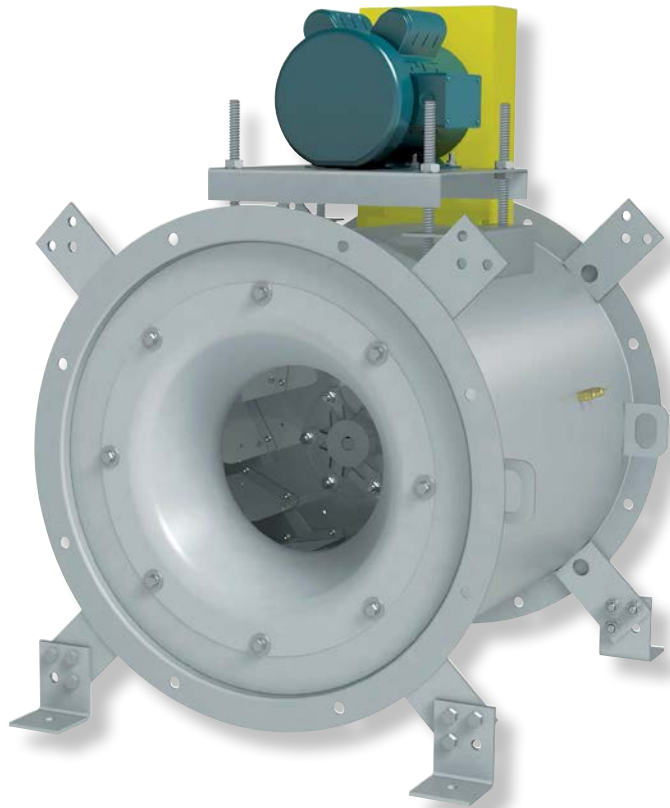


Fans & Blowers

Twin City

Turning Air Into Solutions.



TUBULAR CENTRIFUGAL INLINE FANS

TCLB | TCLBR (Restaurant)

TubularCentrifugal

Models

TCLB | TCLBR

Twin City Fan & Blower Models TCLB and TCLBR Tubular Centrifugal Inline Fans are specifically designed for cost effective, reliable air movement in commercial and light industrial ducted medium pressure applications. The backward inclined fan wheel provides higher efficiencies and lower sound levels than axial type fans. TCLB and TCLBR fans can be horizontally, vertically or roof mounted.

Level I Construction

- Pressure capabilities to 2.5" w.g.
- Most economical

Level II Construction

- Pressure capabilities to 4" w.g.
- Larger diameter shaft and bearings
- Larger horsepower and motor frame size capabilities

Tubular Centrifugal Inline Models

TCLB – Model TCLB features the performance characteristics of a centrifugal fan with the space saving advantages of an axial type fan. It is extremely versatile in that it can be mounted both vertically and horizontally, allowing for numerous applications with multiple mounting configurations. Model TCLB is available UL/cUL 705 listed.

TCLBR – Model TCLBR is similar to the TCLB but is specifically designed for exhausting grease-laden air from kitchens, restaurants and cooking and dishwasher hoods. Model TCLBR is UL/cUL 762 listed for the exhaust of grease-laden air.

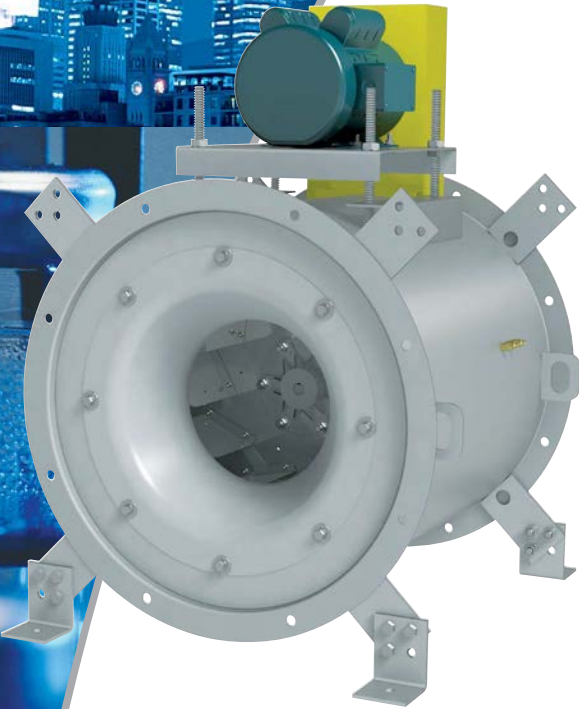
Sizes

10.5" to 49" wheel diameters

Performance

Airflow from 250 to 41,700 CFM

Static pressure to 4" w.g.



TCLB
Tubular Centrifugal Inline



Model TCLB is available with the UL/cUL 705 listing for electrical, File No. E158680.

Model TCLBR is UL/cUL 762 listed for the exhaust of grease-laden air as standard, File No. MH-25478.



Twin City Fan & Blower, a Twin City Fan Company, certifies that the TCLB and TCLBR Tubular Centrifugal Inline Fans shown herein are licensed to bear the AMCA Seal. The Ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the AMCA Certified Ratings Program.



Fan Efficiency Grade (FEG) certification applies to Models TCLB and TCLBR, Sizes 105A2, 122A2, 135A1, 135A2, 150A1, 150A2, 165A1, 165A2, 182A1, 182A2, 200A1, 200A2, 222A1, 222A2, 245A1, 245A2, 270A1, 270A2, 300A1, 300A2, 330A1, 330A2, 365A1, 365A2, 402A1, 402A2, 445A1, 445A2, 490A1 and 490A2.

Construction Features

Housing

All fans are constructed of heavy-gauge steel and continuously welded for strength and rigidity. All fans are provided with punched inlet and outlet flanges as standard. Housings are enamel coated as standard.

Wheel

Wheels are the non-overloading centrifugal backward inclined type and are designed for maximum efficiency and quiet operation. All wheels contain a matching inlet venturi for optimum unit performance. Sizes 90 through 270 are constructed of aluminum and sizes 300 through 490 are constructed of steel.

Belt Tube

A belt tube encloses the belts and drive components, protecting them from the airstream on Models TCLB and TCLBR.

Inlet and Outlet Flanges

Inlet and outlet flanges with prepunched mounting holes are standard on all sizes to provide a bolted connection to ductwork.

Extended Lube Lines

Lube lines with grease fittings are extended to the outside of the fan housing on all models. Nylon lines are standard on Model TCLB. Model TCLBR features copper lube lines.

Drain (TCLBR)

A two inch drain allows drainage of grease to the lowest point of the fan. Drain is located 180° from the motor on vertical fans and at the lowest point of the housing on horizontal fans. A grease box with drain connection is an available option.

Clean Out Doors (TCLBR)

Two cleanout doors are located 180° apart, providing access to the wheel for cleaning.

Bearings

Bearings are selected to exceed the L-10 life of 80,000 hours at the maximum operating speed. Heavy-duty re-greaseable pillowblock ball type bearings are specifically designed for air handling applications.

Mechanical Run Test & Final Vibration Check

All fans are assembled for a mechanical run test and final balance prior to shipment. Vibration readings are taken on both fan bearings in the axial, horizontal, and vertical directions at the specified speed. Fans are balanced to 0.15 in./sec. peak or less.

Adjustable Motor Base

A heavy-duty adjustable motor base provides easy and positive adjustment of belt tension.

Shaft

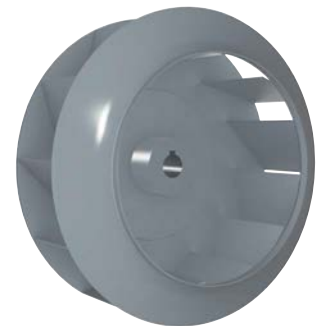
Shaft diameters sized to have a first critical speed of at least 125% of the fan's maximum operating speed.



TCLBR
Restaurant Exhaust



Wheel Size 90 - 270



Wheel Size 300 - 490

Fans & Blowers
Twin City

©2012 Twin City Fan Companies, Ltd. All rights reserved throughout the world. Catalog illustrations cover the general appearance of Twin City Fan & Blower products at the time of publication and we reserve the right to make changes in design and construction at any time without notice.

Product Accessories



Bolted Access Door



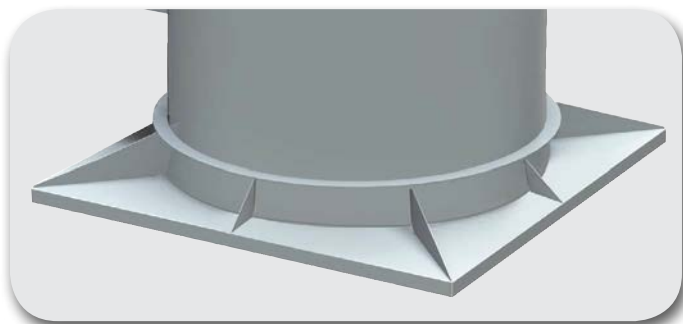
Belt Guard



Discharge Cap



Motor Cover



Curb Cap



Companion Flanges



Inlet and Outlet Guard

Access Door

Bolted or hinged access doors allow for inspection and maintenance of internal fan components.

Belt Guard

Totally enclosed belt guard protects personnel from rotating components by enclosing the motor sheaves and V-belt drive assembly.

Discharge Cap

Discharge caps are provided as a standard accessory on vertical roof mounted configurations. Discharge caps feature butterfly type dampers that seal out weather when the fan is shut off. Butterfly dampers on Models TCLB and TCLBR open with airflow.

Motor Cover

A weatherproof motor cover is available to protect the motor and drive components. Motor covers also serve as an OSHA guard to protect personnel from rotating parts and can easily be removed for inspection.

Spark Resistant Construction Type B

Type B Spark Resistant Construction is available by adding an aluminum bearing cover to all sizes and an aluminum wheel on sizes 300 and larger.

Curb Cap

Attached to the fan's flange for curb mounting. Standard accessory on vertical roof mounted configuration.

Magnetic Latches

Magnetic latches are available to hold discharge cap butterfly dampers closed when not in operation.

Companion Flanges

Inlet and outlet companion flanges are available for ease of duct connection. Companion flanges are rolled angle rings punched to match the standard inlet or outlet flange.

Inlet and Outlet Guard

Inlet and outlet guards are available for added safety on non-ducted applications. Guards are removable for routine inspection and cleaning of the impeller.

Shaft Seal

To limit the air entering the bearing housing and avoid contact of airstream contaminants with the bearings and V-belt drive. Consists of a Teflon wear pad/plate and a rubber checkseal at the wheel end of the bearing housing. Please note that a shaft seal does not make the bearing housing gas tight.

Vibration Isolators

Rubber-in-shear and spring type isolators are available for floor and ceiling mounted installations.

Aluminum Construction

Aluminum construction is available when added protection is needed for moist and light corrosive applications.

Disconnect Switch

A NEMA 1, 3R, 4 or 7/9 safety disconnect switch is available for positive electrical shutoff of the fan and the protection of service personnel.

Inspection Section

Provides a section of duct length that can be removed for complete access to the fan. Each section includes a bolted inspection door.

Wheel Removal Door

Bolted door allows for complete removal of wheel for cleaning, repair or replacement. Located opposite motor.

Inlet Vanes

Nested inlet vanes provide efficient air volume control resulting in substantial energy savings. Available on Model TCLB, sizes 165 and larger.

Mounting Rails

Mounting rails are recommended when motor is in the 3 o'clock or 9 o'clock position.

Special Coatings

Twin City Fan & Blower has an in-house, specialty coating facility offering a wide range of protective coating solutions for fans that are exposed to corrosive atmospheres. Fans are coated with air-dried enamel as standard.

Copper Lube Lines

Copper lube lines are available in place of nylon lube lines on Model TCLB. Lube lines with grease fittings are extended to the outside of the fan housing. Copper lube lines are standard construction on Model TCLBR.

UL/cUL Listing

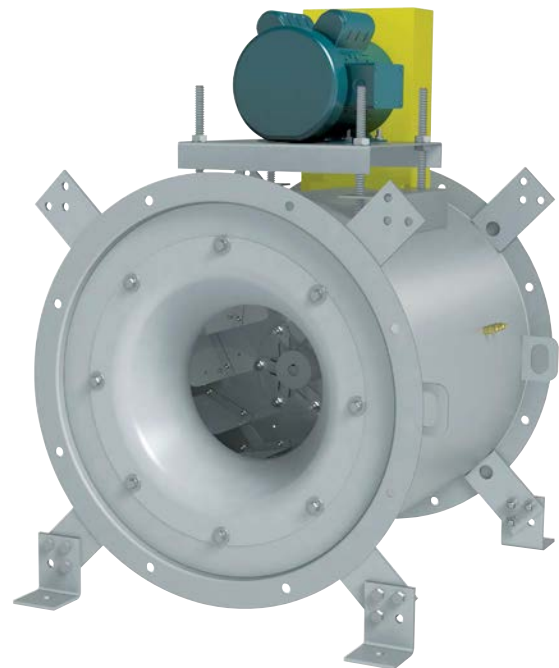
Model TCLB is available with the UL/cUL 705 listing for electrical when supplied with specific motors. Model TCLBR is provided standard with the UL/cUL 762 listing for the exhaust of grease-laden air.



Spring Isolator



Rubber Isolator



TCLB
Tubular Centrifugal Inline



NEMA 3R & NEMA 4 Switch

MountingConfigurations

Horizontal Construction

Horizontal construction is available on sizes 90 through 490.

Horizontal Base Mounted (HBM) — Support legs are provided at each end of the fan for floor mounting.

Horizontal Ceiling Hung (HCH) — For duct mounted fans, four suspension clips are welded to the fan casing to allow ceiling suspension using rod hangers.

Vertical Construction

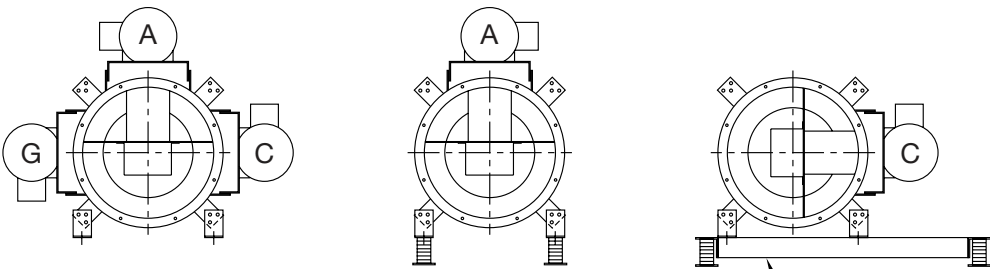
Vertical construction is available on sizes 90 through 490.

Floor or Ceiling Mounted (VU/VD) — Four vertical brackets are welded to either end of the fan housing. Bracket location is determined by airflow direction and support details (see drawing below).

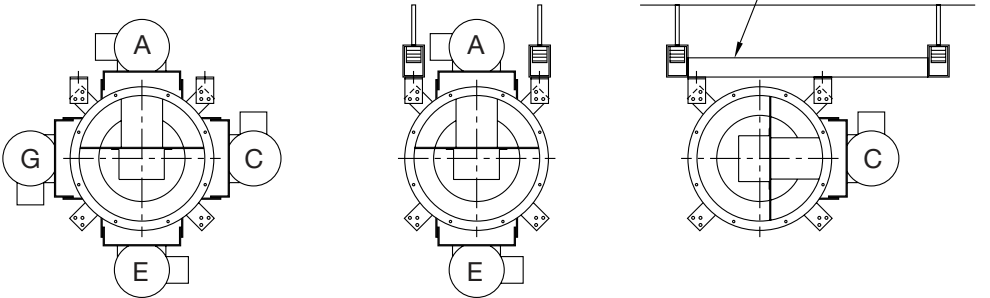
Roof Mounted (VRM) — A curb cap provides a weathertight seal for roof curb mounted fans. A discharge cap and weather cover are also available for the upblast style roof ventilator.

Discharge Arrangements

Horizontal Base Mounted - HBM

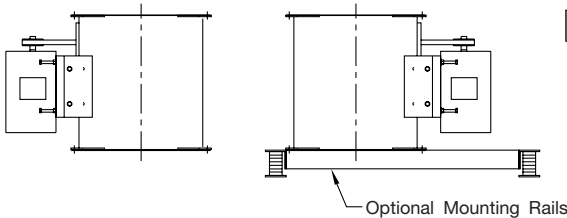


Horizontal Ceiling Hung - HCH

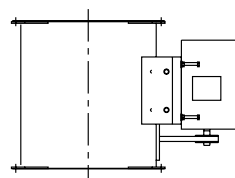


NOTE: Horizontal motor positions shown from outlet end.

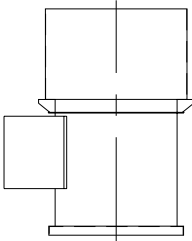
Vertical Up - VU



Vertical Down - VD



Vertical Roof Mount - VRM



Available Discharges by Model

| TCLB | TCLBR |
|------|-------|
| HBM | HBM |
| HCH | HCH |
| VU | VU |
| VD | N/A |
| VRM | VRM |

TCLBR Restaurant Fans

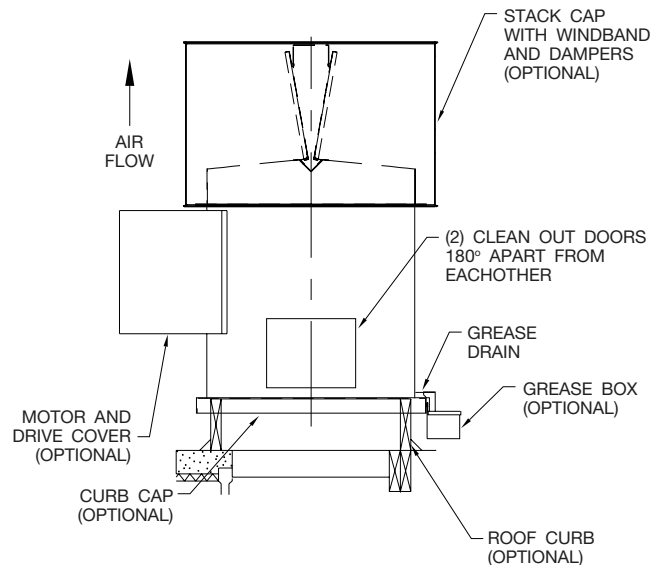
Twin City Fan & Blower offers a specially modified version of the TCLB fan designated as "TCLBR" (Tubular Centrifugal Inline Restaurant Exhaust) for exhausting grease-laden air from kitchens, restaurants, cooking and dishwasher hoods. TCLBR is available in sizes 90 through 490.

Model TCLBR is CULUS 762 listed for exhaust of grease-laden air. TCLBR is licensed to bear the AMCA certified ratings seal for sound and air performance.

The TCLBR fan is available in all configurations with the exception of vertical down (VD).

Standard Product Features

- Belt tube
- Two cleanout doors located 180° apart (90° from motor)
- Cooling fins on wheel
- Housing sealed with Hi-Temp caulk
- 2" drain located 180° from motor at inlet funnel on vertical fans and at lowest point on horizontal fans



EngineeringData

| FAN SIZE | HOUSING GAUGE | SHAFT DIAMETER | | MAXIMUM RPM | | MAXIMUM MOTOR FRAME SIZE | | APPROXIMATE BARE FAN WEIGHTS (LBS.) | |
|----------|---------------|----------------|---------|-------------|---------|--------------------------|---------|-------------------------------------|---------|
| | | LEVEL 1 | LEVEL 2 | LEVEL 1 | LEVEL 2 | LEVEL 1 | LEVEL 2 | LEVEL 1 | LEVEL 2 |
| 90 | 12 | 0.750 | 1.000 | 2728 | 3637 | 56 | 145T | 133 | 157 |
| 105 | 12 | 0.750 | 1.000 | 2728 | 3637 | 143T | 184T | 146 | 159 |
| 122 | 12 | 0.750 | 1.000 | 2375 | 3167 | 145T | 184T | 161 | 231 |
| 135 | 12 | 0.750 | 1.000 | 2156 | 2874 | 145T | 215T | 181 | 261 |
| 150 | 12 | 0.750 | 1.000 | 1940 | 2587 | 184T | 215T | 195 | 270 |
| 165 | 12 | 0.750 | 1.188 | 1764 | 2352 | 184T | 215T | 272 | 287 |
| 182 | 12 | 1.000 | 1.188 | 1589 | 2118 | 184T | 215T | 324 | 380 |
| 200 | 12 | 1.000 | 1.438 | 1449 | 1932 | 184T | 215T | 358 | 419 |
| 222 | 10 | 1.000 | 1.438 | 1303 | 1737 | 215T | 256T | 440 | 525 |
| 245 | 10 | 1.000 | 1.438 | 1183 | 1577 | 215T | 256T | 507 | 592 |
| 270 | 10 | 1.188 | 1.438 | 1048 | 1397 | 215T | 284T | 566 | 733 |
| 300 | 10 | 1.188 | 1.688 | 943 | 1257 | 215T | 284T | 774 | 907 |
| 330 | 10 | 1.438 | 1.938 | 857 | 1143 | 215T | 286T | 902 | 1046 |
| 365 | 10 | 1.438 | 2.188 | 746 | 995 | 256T | 286T | 1039 | 1159 |
| 402 | 10 | 1.688 | 2.438 | 677 | 903 | 256T | 286T | 1191 | 1412 |
| 445 | 10 | 1.938 | 2.438 | 613 | 817 | 284T | 324T | 1508 | 1668 |
| 490 | 10 | 2.188 | 2.438 | 557 | 742 | 284T | 326T | 1692 | 2072 |

90A1, 90A2

Wheel Dia.: 10.50"
Outlet Dia.: 16.13"

Max. BHP = 0.022 (RPM ÷ 1000)³
Tip Speed FPM = 2.75 x RPM

Outlet Area: 1.42 ft²

| CFM | OV | STATIC PRESSURE (INCHES W.G.) | | | | | | | | | | | | | | | |
|------|-----|-------------------------------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|
| | | 0.125 | | 0.25 | | 0.50 | | 1.00 | | 1.50 | | 2.00 | | 2.50 | | 3.00 | |
| | | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | |
| 250 | 176 | 850 | 0.01 | 1024 | 0.02 | 1320 | 0.05 | 1792 | 0.10 | 2176 | 0.16 | | | | | | |
| | | 2.8 | | 4.1 | | 6.4 | | 10.0 | | 12.5 | | | | | | | |
| 330 | 233 | 1011 | 0.02 | 1157 | 0.03 | 1415 | 0.06 | 1844 | 0.12 | 2206 | 0.19 | 2526 | 0.27 | 2811 | 0.35 | 3070 | 0.44 |
| | | 4.3 | | 5.2 | | 7.0 | | 10.6 | | 13.5 | | 15.8 | | 17.4 | | 19.4 | |
| 410 | 289 | 1183 | 0.04 | 1313 | 0.05 | 1537 | 0.08 | 1927 | 0.15 | 2264 | 0.22 | 2564 | 0.31 | 2840 | 0.40 | 3095 | 0.50 |
| | | 5.9 | | 6.6 | | 8.0 | | 11.3 | | 14.3 | | 16.7 | | 18.4 | | 21 | |
| 490 | 346 | 1364 | 0.05 | 1479 | 0.07 | 1680 | 0.10 | 2034 | 0.18 | 2346 | 0.26 | 2630 | 0.35 | 2890 | 0.45 | 3133 | 0.55 |
| | | 7.1 | | 8.1 | | 9.1 | | 12.2 | | 14.9 | | 17.1 | | 19.4 | | 21 | |
| 570 | 402 | 1549 | 0.08 | 1652 | 0.10 | 1837 | 0.13 | 2158 | 0.22 | 2448 | 0.31 | 2714 | 0.41 | 2962 | 0.51 | 3193 | 0.62 |
| | | 8.7 | | 9.9 | | 10.8 | | 13.4 | | 15.5 | | 17.8 | | 20 | | 22 | |
| 650 | 458 | 1739 | 0.11 | 1831 | 0.13 | 2001 | 0.17 | 2297 | 0.26 | 2566 | 0.36 | 2816 | 0.47 | 3050 | 0.58 | 3271 | 0.70 |
| | | 10.3 | | 11.0 | | 12.8 | | 14.4 | | 16.8 | | 18.5 | | 21 | | 23 | |
| 730 | 515 | 1931 | 0.15 | 2014 | 0.17 | 2170 | 0.22 | 2448 | 0.32 | 2696 | 0.42 | 2931 | 0.54 | 3152 | 0.65 | 3363 | 0.78 |
| | | 12.0 | | 12.8 | | 14.4 | | 15.8 | | 17.9 | | 19.5 | | 22 | | 23 | |
| 810 | 571 | 2124 | 0.19 | 2200 | 0.22 | 2344 | 0.27 | 2606 | 0.38 | 2838 | 0.50 | 3058 | 0.62 | 3268 | 0.74 | 3467 | 0.87 |
| | | 13.6 | | 14.3 | | 16.3 | | 17.7 | | 19.4 | | 22 | | 23 | | 25 | |
| 890 | 628 | 2320 | 0.25 | 2389 | 0.28 | 2523 | 0.34 | 2769 | 0.46 | 2990 | 0.58 | 3195 | 0.71 | 3393 | 0.84 | 3584 | 0.98 |
| | | 15.5 | | 16.2 | | 17.9 | | 19.9 | | 20 | | 23 | | 24 | | 26 | |
| 970 | 684 | 2516 | 0.32 | 2580 | 0.35 | 2704 | 0.41 | 2936 | 0.54 | 3148 | 0.67 | 3342 | 0.81 | 3528 | 0.95 | | |
| | | 17.3 | | 18.2 | | 19.6 | | 22 | | 23 | | 24 | | 26 | | | |
| 1050 | 740 | 2713 | 0.40 | 2773 | 0.43 | 2889 | 0.50 | 3107 | 0.64 | 3309 | 0.78 | 3496 | 0.92 | | | | |
| | | 19.6 | | 19.8 | | 21 | | 24 | | 26 | | 26 | | | | | |
| 1130 | 797 | 2911 | 0.49 | 2967 | 0.52 | 3075 | 0.60 | 3281 | 0.75 | 3474 | 0.90 | | | | | | |
| | | 21 | | 23 | | 24 | | 26 | | 28 | | | | | | | |
| 1210 | 853 | 3109 | 0.59 | 3162 | 0.63 | 3264 | 0.71 | 3459 | 0.88 | | | | | | | | |
| | | 24 | | 24 | | 26 | | 29 | | | | | | | | | |
| 1290 | 910 | 3308 | 0.71 | 3357 | 0.75 | 3454 | 0.84 | | | | | | | | | | |
| | | 26 | | 27 | | 27 | | | | | | | | | | | |

MAXIMUM RPM: Level 1 — 2728 Level 2 — 3637

MAXIMUM MOTOR FRAME SIZE: Level 1 = 56 Level 2 = 145T

105A1, 105A2

Wheel Dia.: 10.50"
Outlet Dia.: 16.13"

Max. BHP = 0.034 (RPM ÷ 1000)³
Tip Speed FPM = 2.75 x RPM

Outlet Area: 1.42 ft²
Fan Efficiency Grade: FEG 60*

| CFM | OV | STATIC PRESSURE (INCHES W.G.) | | | | | | | | | | | | | | | |
|------|------|-------------------------------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|
| | | 0.125 | | 0.25 | | 0.50 | | 1.00 | | 1.50 | | 2.00 | | 2.50 | | 3.00 | |
| | | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | |
| 400 | 282 | 869 | 0.02 | 1031 | 0.04 | 1295 | 0.07 | 1745 | 0.14 | | | | | | | | |
| | | 3.6 | | 4.6 | | 6.5 | | 9.8 | | | | | | | | | |
| 520 | 366 | 1038 | 0.04 | 1170 | 0.05 | 1407 | 0.09 | 1799 | 0.17 | 2146 | 0.27 | 2466 | 0.38 | | | | |
| | | 5.5 | | 6.3 | | 7.6 | | 10.8 | | 13.4 | | 15.3 | | | | | |
| 640 | 451 | 1221 | 0.06 | 1330 | 0.08 | 1543 | 0.12 | 1894 | 0.22 | 2205 | 0.32 | 2493 | 0.44 | 2761 | 0.57 | 3020 | 0.70 |
| | | 7.1 | | 8.5 | | 9.1 | | 11.5 | | 14.2 | | 16.3 | | 18.0 | | 20 | |
| 760 | 535 | 1411 | 0.09 | 1504 | 0.11 | 1686 | 0.16 | 2017 | 0.27 | 2298 | 0.38 | 2561 | 0.51 | 2808 | 0.65 | 3043 | 0.79 |
| | | 8.8 | | 10.0 | | 11.0 | | 13.0 | | 14.9 | | 17.0 | | 19.0 | | 21 | |
| 880 | 620 | 1606 | 0.13 | 1687 | 0.16 | 1846 | 0.21 | 2153 | 0.33 | 2414 | 0.46 | 2656 | 0.59 | 2884 | 0.74 | 3103 | 0.89 |
| | | 10.9 | | 11.8 | | 13.4 | | 14.8 | | 16.1 | | 17.9 | | 19.7 | | 22 | |
| 1000 | 704 | 1804 | 0.19 | 1876 | 0.21 | 2017 | 0.27 | 2292 | 0.40 | 2548 | 0.54 | 2771 | 0.69 | 2983 | 0.84 | 3187 | 1.00 |
| | | 13.1 | | 14.1 | | 15.7 | | 16.6 | | 18.0 | | 19.0 | | 20 | | 23 | |
| 1120 | 789 | 2003 | 0.25 | 2068 | 0.28 | 2195 | 0.35 | 2442 | 0.49 | 2686 | 0.64 | 2903 | 0.80 | 3100 | 0.96 | 3291 | 1.13 |
| | | 15.1 | | 16.0 | | 17.8 | | 19.1 | | 19.5 | | 21 | | 22 | | 23 | |
| 1240 | 873 | 2205 | 0.33 | 2263 | 0.37 | 2379 | 0.44 | 2604 | 0.59 | 2826 | 0.75 | 3040 | 0.93 | 3232 | 1.10 | 3410 | 1.28 |
| | | 17.6 | | 18.3 | | 19.7 | | 22 | | 21 | | 23 | | 24 | | 26 | |
| 1360 | 958 | 2407 | 0.43 | 2461 | 0.47 | 2567 | 0.55 | 2774 | 0.71 | 2976 | 0.88 | 3178 | 1.07 | 3369 | 1.26 | 3542 | 1.45 |
| | | 19.9 | | 20 | | 21 | | 24 | | 24 | | 25 | | 26 | | 28 | |
| 1480 | 1042 | 2610 | 0.55 | 2660 | 0.59 | 2758 | 0.68 | 2949 | 0.85 | 3136 | 1.03 | 3322 | 1.23 | 3506 | 1.43 | | |
| | | 22 | | 23 | | 24 | | 26 | | 28 | | 27 | | 29 | | | |
| 1600 | 1127 | 2814 | 0.69 | 2860 | 0.73 | 2951 | 0.82 | 3129 | 1.01 | 3303 | 1.20 | 3474 | 1.40 | | | | |
| | | 25 | | 25 | | 26 | | 29 | | 31 | | 31 | | | | | |
| 1720 | 1211 | 3019 | 0.85 | 3061 | 0.90 | 3146 | 0.99 | 3313 | 1.19 | 3476 | 1.39 | 3636 | 1.61 | | | | |
| | | 27 | | 27 | | 29 | | 31 | | 34 | | 35 | | | | | |
| 1840 | 1296 | 3224 | 1.03 | 3263 | 1.08 | 3343 | 1.19 | 3499 | 1.39 | | | | | | | | |
| | | 30 | | 31 | | 31 | | 34 | | | | | | | | | |
| 1960 | 1380 | 3429 | 1.24 | 3466 | 1.29 | 3541 | 1.40 | | | | | | | | | | |
| | | 33 | | 33 | | 35 | | | | | | | | | | | |

MAXIMUM RPM: Level 1 — 2728 Level 2 — 3637

MAXIMUM MOTOR FRAME SIZE: Level 1 = 143T Level 2 = 184T

* FEG applies to Size 105A2 only.

NOTES:

1. Performance certified is for Installation Type B: Free inlet, ducted outlet.
2. Power rating (BHP) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301.
5. Values shown are for Installation Type B: Free inlet hemispherical sone levels.

122A1, 122A2Wheel Dia.: 12.25"
Outlet Dia.: 18.25"Max. BHP = 0.073 (RPM ÷ 1000)³
Tip Speed FPM = 3.21 x RPMOutlet Area: 1.82 ft²
Fan Efficiency Grade: FEG63*

| CFM | OV | STATIC PRESSURE (INCHES W.G.) | | | | | | | | | | | | | |
|------|------|-------------------------------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|
| | | 0.125 | | 0.25 | | 0.50 | | 1.00 | | 1.50 | | 2.00 | | 2.50 | |
| | | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | |
| 650 | 357 | 798 | 0.04 | 911 | 0.05 | 1123 | 0.10 | 1496 | 0.20 | | | | | | |
| | | 4.4 | | 4.8 | | 6.3 | | 9.7 | | | | | | | |
| 820 | 451 | 951 | 0.06 | 1045 | 0.08 | 1220 | 0.13 | 1545 | 0.25 | 1836 | 0.38 | | | | |
| | | 6.1 | | 6.7 | | 7.8 | | 10.3 | | 13.6 | | | | | |
| 990 | 544 | 1111 | 0.09 | 1191 | 0.12 | 1342 | 0.18 | 1625 | 0.30 | 1886 | 0.45 | 2129 | 0.61 | 2359 | 0.78 |
| | | 7.7 | | 8.7 | | 9.4 | | 11.6 | | 14.7 | | 16.7 | | 19.0 | |
| 1160 | 637 | 1274 | 0.14 | 1346 | 0.17 | 1477 | 0.23 | 1726 | 0.37 | 1963 | 0.52 | 2185 | 0.70 | 2395 | 0.88 |
| | | 9.7 | | 10.4 | | 11.7 | | 13.3 | | 15.0 | | 17.6 | | 19.9 | |
| 1330 | 731 | 1441 | 0.20 | 1504 | 0.24 | 1623 | 0.31 | 1845 | 0.45 | 2057 | 0.62 | 2261 | 0.80 | 2456 | 1.00 |
| | | 11.5 | | 12.6 | | 14.0 | | 14.6 | | 16.9 | | 18.2 | | 20 | |
| 1500 | 824 | 1609 | 0.28 | 1666 | 0.32 | 1775 | 0.40 | 1975 | 0.56 | 2167 | 0.73 | 2354 | 0.92 | 2535 | 1.13 |
| | | 14.1 | | 14.7 | | 16.3 | | 17.6 | | 18.4 | | 20 | | 21 | |
| 1670 | 918 | 1779 | 0.37 | 1831 | 0.42 | 1930 | 0.51 | 2114 | 0.68 | 2290 | 0.87 | 2460 | 1.07 | 2628 | 1.28 |
| | | 16.1 | | 16.9 | | 18.8 | | 20 | | 20 | | 22 | | 23 | |
| 1840 | 1011 | 1950 | 0.49 | 1997 | 0.54 | 2089 | 0.63 | 2259 | 0.83 | 2422 | 1.03 | 2579 | 1.24 | 2733 | 1.46 |
| | | 18.8 | | 19.0 | | 21 | | 23 | | 23 | | 23 | | 24 | |
| 2010 | 1104 | 2121 | 0.63 | 2165 | 0.68 | 2250 | 0.79 | 2410 | 1.00 | 2560 | 1.21 | 2707 | 1.44 | 2849 | 1.67 |
| | | 21 | | 22 | | 23 | | 25 | | 26 | | 24 | | 25 | |
| 2180 | 1198 | 2293 | 0.79 | 2334 | 0.85 | 2413 | 0.96 | 2563 | 1.19 | 2704 | 1.42 | 2841 | 1.66 | 2975 | 1.91 |
| | | 23 | | 24 | | 25 | | 27 | | 28 | | 27 | | 26 | |
| 2350 | 1291 | 2466 | 0.98 | 2504 | 1.04 | 2578 | 1.16 | 2719 | 1.41 | 2852 | 1.66 | 2980 | 1.91 | 3106 | 2.17 |
| | | 26 | | 26 | | 27 | | 30 | | 30 | | 30 | | 29 | |
| 2520 | 1385 | 2639 | 1.19 | 2674 | 1.26 | 2744 | 1.39 | 2877 | 1.66 | 3003 | 1.93 | 3124 | 2.20 | | |
| | | 28 | | 28 | | 30 | | 31 | | 32 | | 33 | | | |
| 2690 | 1478 | 2812 | 1.44 | 2846 | 1.51 | 2911 | 1.66 | 3037 | 1.94 | 3157 | 2.23 | | | | |
| | | 30 | | 31 | | 31 | | 34 | | 35 | | | | | |
| 2860 | 1571 | 2986 | 1.73 | 3017 | 1.80 | 3079 | 1.95 | | | | | | | | |
| | | 32 | | 32 | | 34 | | | | | | | | | |

MAXIMUM RPM: Level 1 — 2375

Level 2 — 3167

MAXIMUM MOTOR FRAME SIZE:

Level 1 = 145T

Level 2 = 184T

* FEG applies to Size 122A2 only.

135A1, 135A2Wheel Dia.: 13.50"
Outlet Dia.: 21.25"Max. BHP = 0.13 (RPM ÷ 1000)³
Tip Speed FPM = 3.53 x RPMOutlet Area: 2.46 ft²
Fan Efficiency Grade: FEG60

| CFM | OV | STATIC PRESSURE (INCHES W.G.) | | | | | | | | | | | | | |
|------|------|-------------------------------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|
| | | 0.125 | | 0.25 | | 0.50 | | 1.00 | | 1.50 | | 2.00 | | 2.50 | |
| | | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | |
| 800 | 325 | 685 | 0.04 | 791 | 0.07 | 989 | 0.12 | | | | | | | | |
| | | 4.8 | | 6.0 | | 8.0 | | | | | | | | | |
| 1015 | 412 | 815 | 0.07 | 903 | 0.10 | 1066 | 0.16 | 1370 | 0.31 | | | | | | |
| | | 6.4 | | 7.7 | | 9.3 | | 13.4 | | | | | | | |
| 1230 | 499 | 953 | 0.11 | 1027 | 0.14 | 1167 | 0.21 | 1429 | 0.37 | 1675 | 0.57 | | | | |
| | | 7.9 | | 9.5 | | 11.0 | | 14.4 | | 17.6 | | | | | |
| 1445 | 587 | 1096 | 0.16 | 1159 | 0.20 | 1282 | 0.28 | 1512 | 0.45 | 1730 | 0.66 | 1939 | 0.89 | | |
| | | 10.1 | | 11.1 | | 13.1 | | 16.7 | | 17.9 | | 20 | | | |
| 1660 | 674 | 1241 | 0.23 | 1296 | 0.27 | 1405 | 0.36 | 1611 | 0.55 | 1806 | 0.77 | 1995 | 1.01 | 2178 | 1.27 |
| | | 12.3 | | 13.2 | | 15.7 | | 18.0 | | 19.2 | | 20 | | 23 | |
| 1875 | 761 | 1388 | 0.32 | 1437 | 0.36 | 1534 | 0.46 | 1722 | 0.67 | 1898 | 0.90 | 2069 | 1.15 | 2237 | 1.42 |
| | | 14.4 | | 15.5 | | 17.6 | | 19.5 | | 21 | | 22 | | 23 | |
| 2090 | 849 | 1537 | 0.43 | 1581 | 0.48 | 1668 | 0.59 | 1840 | 0.81 | 2001 | 1.06 | 2158 | 1.32 | 2311 | 1.60 |
| | | 17.4 | | 17.7 | | 18.9 | | 21 | | 22 | | 23 | | 24 | |
| 2305 | 936 | 1687 | 0.56 | 1726 | 0.62 | 1806 | 0.74 | 1962 | 0.98 | 2113 | 1.24 | 2257 | 1.52 | 2399 | 1.82 |
| | | 19.2 | | 19.9 | | 21 | | 24 | | 23 | | 24 | | 25 | |
| 2520 | 1023 | 1837 | 0.72 | 1873 | 0.78 | 1946 | 0.91 | 2090 | 1.17 | 2231 | 1.45 | 2366 | 1.75 | 2496 | 2.06 |
| | | 21 | | 22 | | 23 | | 25 | | 26 | | 25 | | 27 | |
| 2735 | 1110 | 1987 | 0.91 | 2021 | 0.98 | 2088 | 1.11 | 2221 | 1.40 | 2353 | 1.69 | 2480 | 2.00 | 2603 | 2.33 |
| | | 23 | | 24 | | 25 | | 27 | | 28 | | 28 | | 28 | |
| 2950 | 1198 | 2138 | 1.13 | 2170 | 1.20 | 2232 | 1.35 | 2355 | 1.65 | 2478 | 1.97 | 2598 | 2.29 | 2715 | 2.63 |
| | | 26 | | 26 | | 27 | | 29 | | 30 | | 32 | | 32 | |
| 3165 | 1285 | 2290 | 1.38 | 2319 | 1.46 | 2377 | 1.62 | 2492 | 1.94 | 2607 | 2.27 | 2720 | 2.62 | 2831 | 2.97 |
| | | 28 | | 28 | | 29 | | 31 | | 34 | | 35 | | 35 | |
| 3380 | 1372 | 2442 | 1.67 | 2469 | 1.75 | 2523 | 1.92 | 2631 | 2.26 | 2739 | 2.62 | 2846 | 2.98 | | |
| | | 31 | | 31 | | 32 | | 35 | | 37 | | 38 | | | |
| 3595 | 1460 | 2594 | 2.00 | 2619 | 2.09 | 2670 | 2.26 | 2772 | 2.63 | 2873 | 3.00 | | | | |
| | | 33 | | 33 | | 35 | | 37 | | 40 | | | | | |

MAXIMUM RPM: Level 1 — 2156

Level 2 — 2874

MAXIMUM MOTOR FRAME SIZE:

Level 1 = 145T

Level 2 = 215T

NOTES:

- Performance certified is for Installation Type B: Free inlet, ducted outlet.
- Power rating (BHP) does not include transmission losses.
- Performance ratings do not include the effects of appurtenances (accessories).
- The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301.
- Values shown are for Installation Type B: Free inlet hemispherical sone levels.

150A1, 150A2Wheel Dia.: 15.00"
Outlet Dia.: 22.19"Max. BHP = 0.21 (RPM ÷ 1000)³
Tip Speed FPM = 3.93 x RPMOutlet Area: 2.68 ft²
Fan Efficiency Grade: FEG56

| CFM | OV | STATIC PRESSURE (INCHES W.G.) | | | | | | | | | | | | | | | |
|------|------|-------------------------------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|
| | | 0.125 | | 0.25 | | 0.50 | | 1.00 | | 1.50 | | 2.00 | | 2.50 | | 3.00 | |
| | | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | |
| 1000 | 372 | 651 | 0.06 | 750 | 0.09 | 931 | 0.16 | 1250 | 0.34 | | | | | | | | |
| | | 5.2 | | 5.8 | | 7.9 | | 12.5 | | | | | | | | | |
| 1250 | 466 | 767 | 0.09 | 849 | 0.13 | 1003 | 0.21 | 1283 | 0.40 | 1533 | 0.64 | | | | | | |
| | | 6.7 | | 7.6 | | 9.1 | | 13.4 | | 17.2 | | | | | | | |
| 1500 | 559 | 889 | 0.14 | 959 | 0.18 | 1093 | 0.27 | 1337 | 0.48 | 1567 | 0.73 | 1776 | 1.00 | | | | |
| | | 8.5 | | 9.5 | | 10.5 | | 14.2 | | 17.8 | | 20 | | | | | |
| 1750 | 652 | 1016 | 0.21 | 1076 | 0.25 | 1194 | 0.36 | 1413 | 0.58 | 1616 | 0.84 | 1812 | 1.13 | 1995 | 1.44 | 2166 | 1.79 |
| | | 10.3 | | 11.6 | | 13.0 | | 16.1 | | 18.3 | | 21 | | 23 | | 24 | |
| 2000 | 745 | 1144 | 0.29 | 1197 | 0.35 | 1302 | 0.46 | 1500 | 0.70 | 1685 | 0.97 | 1861 | 1.27 | 2033 | 1.60 | 2197 | 1.96 |
| | | 12.6 | | 13.6 | | 15.6 | | 17.4 | | 19.7 | | 21 | | 24 | | 25 | |
| 2250 | 838 | 1275 | 0.40 | 1322 | 0.46 | 1416 | 0.59 | 1596 | 0.85 | 1766 | 1.14 | 1927 | 1.45 | 2084 | 1.79 | 2238 | 2.16 |
| | | 15.0 | | 15.9 | | 17.8 | | 19.1 | | 21 | | 23 | | 24 | | 25 | |
| 2500 | 931 | 1406 | 0.53 | 1449 | 0.60 | 1534 | 0.74 | 1699 | 1.02 | 1856 | 1.33 | 2006 | 1.66 | 2150 | 2.01 | 2291 | 2.39 |
| | | 17.7 | | 18.7 | | 19.8 | | 22 | | 22 | | 24 | | 25 | | 26 | |
| 2750 | 1024 | 1539 | 0.70 | 1578 | 0.77 | 1655 | 0.92 | 1807 | 1.23 | 1953 | 1.56 | 2093 | 1.90 | 2228 | 2.27 | 2359 | 2.66 |
| | | 19.8 | | 20 | | 22 | | 24 | | 24 | | 25 | | 27 | | 28 | |
| 3000 | 1117 | 1672 | 0.89 | 1707 | 0.97 | 1778 | 1.13 | 1918 | 1.46 | 2055 | 1.81 | 2186 | 2.18 | 2313 | 2.57 | 2437 | 2.97 |
| | | 22 | | 23 | | 24 | | 26 | | 27 | | 26 | | 28 | | 30 | |
| 3250 | 1210 | 1805 | 1.12 | 1838 | 1.20 | 1904 | 1.37 | 2034 | 1.73 | 2161 | 2.10 | 2285 | 2.50 | 2404 | 2.90 | 2521 | 3.32 |
| | | 24 | | 25 | | 26 | | 28 | | 29 | | 29 | | 29 | | 31 | |
| 3500 | 1304 | 1939 | 1.38 | 1970 | 1.47 | 2031 | 1.65 | 2152 | 2.04 | 2271 | 2.43 | 2388 | 2.85 | 2501 | 3.27 | | |
| | | 26 | | 27 | | 28 | | 30 | | 32 | | 32 | | 31 | | | |
| 3750 | 1397 | 2074 | 1.69 | 2102 | 1.78 | 2159 | 1.98 | 2272 | 2.38 | 2384 | 2.80 | 2494 | 3.23 | | | | |
| | | 29 | | 29 | | 29 | | 32 | | 34 | | 35 | | | | | |
| 4000 | 1490 | 2208 | 2.03 | 2235 | 2.13 | 2289 | 2.34 | 2395 | 2.77 | 2500 | 3.21 | | | | | | |
| | | 31 | | 31 | | 32 | | 34 | | 36 | | | | | | | |
| 4250 | 1583 | 2343 | 2.42 | 2368 | 2.53 | 2419 | 2.75 | 2519 | 3.20 | | | | | | | | |
| | | 32 | | 34 | | 34 | | 37 | | | | | | | | | |

MAXIMUM RPM: Level 1 — 1940

Level 2 — 2587

MAXIMUM MOTOR FRAME SIZE:

Level 1 = 184T

Level 2 = 215T

165A1, 165A2Wheel Dia.: 16.50"
Outlet Dia.: 24.25"Max. BHP = 0.34 (RPM ÷ 1000)³
Tip Speed FPM = 4.32 x RPMOutlet Area: 3.21 ft²
Fan Efficiency Grade: FEG56

| CFM | OV | STATIC PRESSURE (INCHES W.G.) | | | | | | | | | | | | | | | |
|------|------|-------------------------------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|
| | | 0.125 | | 0.25 | | 0.50 | | 1.00 | | 1.50 | | 2.00 | | 2.50 | | 3.00 | |
| | | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | |
| 1200 | 374 | 588 | 0.07 | 679 | 0.10 | 844 | 0.19 | 1135 | 0.41 | | | | | | | | |
| | | 5.3 | | 5.9 | | 8.2 | | 12.7 | | | | | | | | | |
| 1515 | 472 | 698 | 0.11 | 773 | 0.16 | 913 | 0.25 | 1167 | 0.49 | 1394 | 0.77 | | | | | | |
| | | 7.1 | | 7.9 | | 9.5 | | 13.5 | | 17.8 | | | | | | | |
| 1830 | 571 | 814 | 0.17 | 877 | 0.22 | 998 | 0.33 | 1219 | 0.59 | 1426 | 0.88 | 1616 | 1.22 | | | | |
| | | 8.8 | | 10.0 | | 11.0 | | 15.0 | | 18.7 | | 22 | | | | | |
| 2145 | 669 | 934 | 0.26 | 988 | 0.32 | 1094 | 0.44 | 1291 | 0.71 | 1474 | 1.02 | 1651 | 1.38 | 1817 | 1.76 | 1971 | 2.18 |
| | | 10.8 | | 12.1 | | 13.6 | | 16.5 | | 19.9 | | 22 | | 24 | | 26 | |
| 2460 | 767 | 1056 | 0.37 | 1103 | 0.44 | 1197 | 0.57 | 1375 | 0.87 | 1541 | 1.20 | 1699 | 1.57 | 1854 | 1.97 | 2002 | 2.40 |
| | | 13.3 | | 14.2 | | 16.1 | | 18.1 | | 21 | | 23 | | 26 | | 27 | |
| 2775 | 865 | 1179 | 0.51 | 1222 | 0.58 | 1305 | 0.74 | 1467 | 1.06 | 1619 | 1.42 | 1764 | 1.80 | 1904 | 2.21 | 2042 | 2.65 |
| | | 15.9 | | 16.7 | | 18.9 | | 21 | | 22 | | 25 | | 26 | | 28 | |
| 3090 | 964 | 1304 | 0.69 | 1342 | 0.77 | 1418 | 0.94 | 1565 | 1.29 | 1706 | 1.67 | 1840 | 2.07 | 1969 | 2.50 | 2095 | 2.95 |
| | | 18.6 | | 19.0 | | 21 | | 24 | | 24 | | 26 | | 28 | | 29 | |
| 3405 | 1062 | 1430 | 0.90 | 1464 | 0.99 | 1533 | 1.17 | 1668 | 1.55 | 1798 | 1.96 | 1924 | 2.39 | 2045 | 2.84 | 2162 | 3.31 |
| | | 21 | | 22 | | 24 | | 26 | | 26 | | 27 | | 29 | | 31 | |
| 3720 | 1160 | 1556 | 1.16 | 1588 | 1.25 | 1651 | 1.45 | 1775 | 1.86 | 1896 | 2.29 | 2013 | 2.75 | 2127 | 3.22 | 2237 | 3.71 |
| | | 24 | | 25 | | 26 | | 29 | | 29 | | 29 | | 31 | | 33 | |
| 4035 | 1258 | 1682 | 1.45 | 1712 | 1.56 | 1770 | 1.77 | 1885 | 2.21 | 1998 | 2.67 | 2108 | 3.16 | 2215 | 3.65 | 2319 | 4.17 |
| | | 26 | | 27 | | 28 | | 31 | | 32 | | 32 | | 32 | | 33 | |
| 4350 | 1356 | 1809 | 1.80 | 1837 | 1.92 | 1891 | 2.15 | 1998 | 2.62 | 2103 | 3.11 | 2207 | 3.62 | 2308 | 4.14 | | |
| | | 29 | | 30 | | 31 | | 33 | | 35 | | 36 | | 35 | | | |
| 4665 | 1455 | 1937 | 2.21 | 1962 | 2.33 | 2012 | 2.57 | 2112 | 3.07 | 2211 | 3.59 | 2309 | 4.13 | | | | |
| | | 32 | | 32 | | 33 | | 35 | | 37 | | 38 | | | | | |
| 4980 | 1553 | 2064 | 2.67 | 2088 | 2.80 | 2135 | 3.05 | 2229 | 3.59 | 2322 | 4.14 | | | | | | |
| | | 34 | | 35 | | 35 | | 37 | | 39 | | | | | | | |
| 5295 | 1651 | 2192 | 3.19 | 2214 | 3.33 | 2259 | 3.60 | 2347 | 4.16 | | | | | | | | |
| | | 37 | | 37 | | 37 | | 39 | | | | | | | | | |

MAXIMUM RPM: Level 1 — 1764

Level 2 — 2352

MAXIMUM MOTOR FRAME SIZE:

Level 1 = 184T

Level 2 = 215T

NOTES:

- Performance certified is for Installation Type B: Free inlet, ducted outlet.
- Power rating (BHP) does not include transmission losses.
- Performance ratings do not include the effects of appurtenances (accessories).
- The sound ratings shown are loudness values in fan sonos at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301.
- Values shown are for Installation Type B: Free inlet hemispherical sone levels.

182A1, 182A2Wheel Dia.: 18.25"
Outlet Dia.: 30.38"Max. BHP = 0.56 (RPM ÷ 1000)³
Tip Speed FPM = 4.78 x RPMOutlet Area: 5.03 ft²
Fan Efficiency Grade: FEG60

| CFM | OV | STATIC PRESSURE (INCHES W.G.) | | | | | | | | | | | | | |
|------|------|-------------------------------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|
| | | 0.125 | | 0.25 | | 0.50 | | 1.00 | | 1.50 | | 2.00 | | 2.50 | |
| | | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | |
| 1400 | 278 | 491 | 0.07 | 575 | 0.11 | 727 | 0.20 | | | | | | | | |
| | | 4.6 | | 5.7 | | 8.3 | | | | | | | | | |
| 1800 | 358 | 592 | 0.11 | 653 | 0.16 | 783 | 0.26 | 1012 | 0.53 | | | | | | |
| | | 6.5 | | 7.6 | | 9.2 | | 13.8 | | | | | | | |
| 2200 | 437 | 697 | 0.17 | 749 | 0.23 | 853 | 0.35 | 1055 | 0.63 | 1239 | 0.97 | 1411 | 1.35 | | |
| | | 8.5 | | 9.7 | | 10.7 | | 14.8 | | 19.0 | | 21 | | | |
| 2600 | 517 | 805 | 0.26 | 851 | 0.33 | 936 | 0.46 | 1116 | 0.77 | 1280 | 1.12 | 1436 | 1.52 | 1584 | 1.95 |
| | | 10.6 | | 11.9 | | 13.3 | | 16.5 | | 19.4 | | 22 | | 24 | |
| 3000 | 596 | 915 | 0.38 | 956 | 0.45 | 1031 | 0.60 | 1186 | 0.93 | 1337 | 1.31 | 1477 | 1.72 | 1613 | 2.17 |
| | | 12.9 | | 13.8 | | 16.1 | | 18.6 | | 21 | | 22 | | 25 | |
| 3400 | 676 | 1027 | 0.53 | 1063 | 0.61 | 1132 | 0.78 | 1264 | 1.13 | 1404 | 1.54 | 1534 | 1.97 | 1657 | 2.43 |
| | | 15.6 | | 17.0 | | 18.8 | | 21 | | 22 | | 24 | | 25 | |
| 3800 | 755 | 1139 | 0.72 | 1172 | 0.81 | 1235 | 0.99 | 1352 | 1.37 | 1476 | 1.80 | 1600 | 2.27 | 1715 | 2.75 |
| | | 18.6 | | 19.8 | | 21 | | 24 | | 23 | | 25 | | 27 | |
| 4200 | 835 | 1252 | 0.95 | 1282 | 1.05 | 1341 | 1.25 | 1448 | 1.66 | 1555 | 2.10 | 1670 | 2.60 | 1780 | 3.12 |
| | | 21 | | 23 | | 24 | | 26 | | 26 | | 26 | | 28 | |
| 4600 | 914 | 1366 | 1.22 | 1394 | 1.33 | 1447 | 1.55 | 1548 | 2.00 | 1643 | 2.46 | 1745 | 2.97 | 1850 | 3.53 |
| | | 24 | | 25 | | 26 | | 28 | | 30 | | 28 | | 29 | |
| 5000 | 994 | 1480 | 1.55 | 1506 | 1.67 | 1556 | 1.91 | 1650 | 2.40 | 1738 | 2.88 | 1828 | 3.41 | 1923 | 3.98 |
| | | 27 | | 27 | | 29 | | 32 | | 32 | | 32 | | 33 | |
| 5400 | 1073 | 1595 | 1.93 | 1618 | 2.05 | 1665 | 2.32 | 1754 | 2.84 | 1837 | 3.37 | 1918 | 3.91 | 2003 | 4.49 |
| | | 30 | | 30 | | 31 | | 34 | | 36 | | 36 | | 36 | |
| 5800 | 1153 | 1709 | 2.36 | 1732 | 2.51 | 1775 | 2.78 | 1859 | 3.35 | 1938 | 3.91 | 2014 | 4.48 | 2090 | 5.08 |
| | | 32 | | 33 | | 34 | | 37 | | 39 | | 40 | | 41 | |
| 6200 | 1232 | 1824 | 2.87 | 1845 | 3.02 | 1886 | 3.32 | 1965 | 3.92 | 2041 | 4.53 | 2112 | 5.12 | | |
| | | 35 | | 36 | | 37 | | 39 | | 42 | | 45 | | | |
| 6600 | 1312 | 1939 | 3.44 | 1959 | 3.60 | 1997 | 3.91 | 2072 | 4.55 | | | | | | |
| | | 39 | | 39 | | 40 | | 43 | | | | | | | |

MAXIMUM RPM: Level 1 — 1589

Level 2 — 2118

MAXIMUM MOTOR FRAME SIZE:

Level 1 = 184T

Level 2 = 215T

200A1, 200A2Wheel Dia.: 20.00"
Outlet Dia.: 33.47"Max. BHP = 0.88 (RPM ÷ 1000)³
Tip Speed FPM = 5.24 x RPMOutlet Area: 6.11 ft²
Fan Efficiency Grade: FEG60

| CFM | OV | STATIC PRESSURE (INCHES W.G.) | | | | | | | | | | | | | |
|------|------|-------------------------------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|
| | | 0.125 | | 0.25 | | 0.50 | | 1.00 | | 1.50 | | 2.00 | | 2.50 | |
| | | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | |
| 2100 | 344 | 528 | 0.12 | 586 | 0.18 | 707 | 0.31 | 920 | 0.62 | | | | | | |
| | | 6.3 | | 7.5 | | 9.5 | | 13.4 | | | | | | | |
| 2550 | 417 | 617 | 0.19 | 666 | 0.26 | 766 | 0.40 | 953 | 0.73 | 1125 | 1.13 | 1286 | 1.59 | | |
| | | 8.3 | | 9.5 | | 10.7 | | 14.4 | | 19.4 | | 22 | | | |
| 3000 | 491 | 709 | 0.29 | 752 | 0.36 | 833 | 0.51 | 1003 | 0.88 | 1157 | 1.29 | 1303 | 1.77 | 1441 | 2.29 |
| | | 10.2 | | 11.7 | | 13.2 | | 16.2 | | 20 | | 23 | | 25 | |
| 3450 | 565 | 803 | 0.41 | 842 | 0.49 | 913 | 0.66 | 1062 | 1.05 | 1202 | 1.49 | 1334 | 1.98 | 1462 | 2.52 |
| | | 12.5 | | 13.5 | | 15.5 | | 17.9 | | 22 | | 24 | | 26 | |
| 3900 | 638 | 898 | 0.56 | 933 | 0.66 | 998 | 0.85 | 1125 | 1.26 | 1257 | 1.74 | 1378 | 2.24 | 1495 | 2.79 |
| | | 14.7 | | 15.7 | | 18.1 | | 20 | | 23 | | 25 | | 27 | |
| 4350 | 712 | 994 | 0.76 | 1025 | 0.86 | 1085 | 1.07 | 1197 | 1.51 | 1317 | 2.01 | 1432 | 2.56 | 1540 | 3.13 |
| | | 17.6 | | 18.3 | | 21 | | 24 | | 24 | | 26 | | 28 | |
| 4800 | 786 | 1090 | 0.99 | 1119 | 1.11 | 1174 | 1.34 | 1276 | 1.81 | 1381 | 2.33 | 1491 | 2.91 | 1593 | 3.51 |
| | | 21 | | 22 | | 23 | | 27 | | 26 | | 28 | | 30 | |
| 5250 | 859 | 1187 | 1.27 | 1214 | 1.40 | 1265 | 1.65 | 1360 | 2.16 | 1452 | 2.70 | 1552 | 3.30 | 1652 | 3.96 |
| | | 24 | | 24 | | 26 | | 29 | | 30 | | 29 | | 31 | |
| 5700 | 933 | 1285 | 1.60 | 1309 | 1.74 | 1357 | 2.02 | 1446 | 2.57 | 1531 | 3.14 | 1619 | 3.75 | 1712 | 4.43 |
| | | 26 | | 27 | | 28 | | 31 | | 33 | | 33 | | 32 | |
| 6150 | 1007 | 1382 | 1.99 | 1405 | 2.14 | 1449 | 2.43 | 1534 | 3.03 | 1613 | 3.63 | 1692 | 4.26 | 1776 | 4.96 |
| | | 29 | | 30 | | 30 | | 34 | | 36 | | 36 | | 35 | |
| 6600 | 1080 | 1480 | 2.43 | 1501 | 2.59 | 1543 | 2.91 | 1623 | 3.55 | 1698 | 4.19 | 1771 | 4.85 | 1846 | 5.55 |
| | | 32 | | 32 | | 34 | | 36 | | 39 | | 39 | | 38 | |
| 7050 | 1154 | 1578 | 2.94 | 1598 | 3.11 | 1637 | 3.45 | 1713 | 4.14 | 1785 | 4.83 | 1853 | 5.51 | 1922 | 6.23 |
| | | 34 | | 35 | | 36 | | 39 | | 41 | | 42 | | 44 | |
| 7500 | 1227 | 1676 | 3.52 | 1695 | 3.70 | 1732 | 4.06 | 1804 | 4.79 | 1873 | 5.52 | | | | |
| | | 37 | | 38 | | 39 | | 41 | | 44 | | | | | |
| 7950 | 1301 | 1775 | 4.17 | 1793 | 4.36 | 1828 | 4.74 | 1896 | 5.51 | | | | | | |
| | | 41 | | 41 | | 42 | | 44 | | | | | | | |

MAXIMUM RPM: Level 1 — 1449

Level 2 — 1932

MAXIMUM MOTOR FRAME SIZE:

Level 1 = 184T

Level 2 = 215T

NOTES:

- Performance certified is for Installation Type B: Free inlet, ducted outlet.
- Power rating (BHP) does not include transmission losses.
- Performance ratings do not include the effects of appurtenances (accessories).
- The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301.
- Values shown are for Installation Type B: Free inlet hemispherical sone levels.

222A1, 222A2

Wheel Dia.: 22.25"
Outlet Dia.: 36.50"

Max. BHP = 1.50 (RPM ÷ 1000)³
Tip Speed FPM = 5.83 x RPM

Outlet Area: 7.27 ft²
Fan Efficiency Grade: FEG60

| CFM | OV | STATIC PRESSURE (INCHES W.G.) | | | | | | | | | | | | | | | | | | | |
|-------|------|-------------------------------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|
| | | 0.125 | | 0.25 | | 0.50 | | 1.00 | | 1.50 | | 2.00 | | 2.50 | | 3.00 | | 3.50 | | 4.00 | |
| | | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | |
| 2600 | 358 | 465 | 0.14 | 518 | 0.21 | 626 | 0.36 | 822 | 0.74 | | | | | | | | | | | | |
| | | 4.6 | | 5.3 | | 6.9 | | 10.5 | | | | | | | | | | | | | |
| 3200 | 440 | 550 | 0.23 | 593 | 0.30 | 681 | 0.48 | 848 | 0.88 | 1007 | 1.37 | | | | | | | | | | |
| | | 6.0 | | 6.9 | | 7.8 | | 11.3 | | 14.8 | | | | | | | | | | | |
| 3800 | 523 | 638 | 0.35 | 675 | 0.44 | 747 | 0.62 | 895 | 1.07 | 1032 | 1.57 | 1166 | 2.15 | | | | | | | | |
| | | 7.5 | | 8.4 | | 9.9 | | 12.6 | | 15.4 | | 18.0 | | | | | | | | | |
| 4400 | 605 | 728 | 0.50 | 760 | 0.60 | 822 | 0.81 | 951 | 1.29 | 1075 | 1.83 | 1192 | 2.42 | 1308 | 3.08 | 1423 | 3.79 | | | | |
| | | 9.5 | | 10.1 | | 12.0 | | 13.4 | | 16.4 | | 19.0 | | 21 | | 23 | | | | | |
| 5000 | 688 | 819 | 0.70 | 847 | 0.82 | 903 | 1.06 | 1013 | 1.56 | 1128 | 2.15 | 1234 | 2.76 | 1338 | 3.44 | 1440 | 4.17 | 1541 | 4.95 | 1642 | 5.77 |
| | | 11.6 | | 12.3 | | 14.0 | | 15.6 | | 17.8 | | 20 | | 22 | | 23 | | 26 | | 28 | |
| 5600 | 771 | 911 | 0.96 | 936 | 1.08 | 986 | 1.35 | 1084 | 1.89 | 1186 | 2.51 | 1287 | 3.18 | 1381 | 3.88 | 1473 | 4.61 | 1565 | 5.42 | 1656 | 6.27 |
| | | 13.9 | | 14.6 | | 15.7 | | 18.3 | | 18.7 | | 22 | | 23 | | 24 | | 26 | | 29 | |
| 6200 | 853 | 1003 | 1.27 | 1026 | 1.41 | 1072 | 1.70 | 1160 | 2.29 | 1249 | 2.92 | 1343 | 3.64 | 1433 | 4.39 | 1518 | 5.16 | 1601 | 5.96 | 1685 | 6.83 |
| | | 16.0 | | 16.8 | | 18.4 | | 21 | | 22 | | 23 | | 25 | | 26 | | 27 | | 30 | |
| 6800 | 936 | 1096 | 1.64 | 1117 | 1.80 | 1159 | 2.11 | 1240 | 2.75 | 1320 | 3.42 | 1403 | 4.15 | 1489 | 4.96 | 1571 | 5.78 | 1648 | 6.61 | 1724 | 7.48 |
| | | 18.9 | | 19.6 | | 21 | | 23 | | 25 | | 25 | | 26 | | 28 | | 29 | | 31 | |
| 7400 | 1018 | 1189 | 2.08 | 1209 | 2.25 | 1247 | 2.59 | 1322 | 3.29 | 1396 | 4.00 | 1470 | 4.75 | 1548 | 5.58 | 1626 | 6.45 | 1701 | 7.35 | | |
| | | 22 | | 22 | | 23 | | 26 | | 28 | | 28 | | 27 | | 30 | | 31 | | | |
| 8000 | 1101 | 1283 | 2.61 | 1301 | 2.79 | 1336 | 3.15 | 1406 | 3.90 | 1475 | 4.66 | 1542 | 5.44 | 1612 | 6.28 | 1685 | 7.20 | | | | |
| | | 24 | | 25 | | 26 | | 29 | | 31 | | 32 | | 31 | | 32 | | | | | |
| 8600 | 1183 | 1377 | 3.21 | 1393 | 3.40 | 1426 | 3.79 | 1492 | 4.59 | 1556 | 5.41 | 1619 | 6.23 | 1682 | 7.09 | | | | | | |
| | | 28 | | 28 | | 29 | | 32 | | 34 | | 35 | | 36 | | | | | | | |
| 9200 | 1266 | 1470 | 3.90 | 1486 | 4.11 | 1517 | 4.52 | 1578 | 5.37 | 1639 | 6.24 | 1698 | 7.12 | | | | | | | | |
| | | 30 | | 32 | | 32 | | 34 | | 37 | | 38 | | | | | | | | | |
| 9800 | 1349 | 1564 | 4.68 | 1579 | 4.90 | 1608 | 5.34 | 1666 | 6.25 | 1723 | 7.17 | | | | | | | | | | |
| | | 34 | | 34 | | 36 | | 37 | | 40 | | | | | | | | | | | |
| 10400 | 1431 | 1658 | 5.57 | 1672 | 5.80 | 1699 | 6.26 | | | | | | | | | | | | | | |
| | | 37 | | 37 | | 39 | | | | | | | | | | | | | | | |

MAXIMUM RPM: Level 1 — 1303

Level 2 — 1737

MAXIMUM MOTOR FRAME SIZE:

Level 1 = 215T

Level 2 = 256T

245A1, 245A2

Wheel Dia.: 24.50"
Outlet Dia.: 40.00"

Max. BHP = 2.43 (RPM ÷ 1000)³
Tip Speed FPM = 6.41 x RPM

Outlet Area: 8.73 ft²
Fan Efficiency Grade: FEG60

| CFM | OV | STATIC PRESSURE (INCHES W.G.) | | | | | | | | | | | | | | | | | | | |
|-------|------|-------------------------------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|
| | | 0.125 | | 0.25 | | 0.50 | | 1.00 | | 1.50 | | 2.00 | | 2.50 | | 3.00 | | 3.50 | | 4.00 | |
| | | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | |
| 3200 | 367 | 427 | 0.18 | 474 | 0.26 | 571 | 0.45 | 748 | 0.91 | | | | | | | | | | | | |
| | | 4.7 | | 5.6 | | 7.2 | | 11 | | | | | | | | | | | | | |
| 3900 | 447 | 502 | 0.28 | 541 | 0.37 | 620 | 0.58 | 771 | 1.07 | 915 | 1.66 | | | | | | | | | | |
| | | 6.1 | | 7.2 | | 8.1 | | 11.7 | | 15.3 | | | | | | | | | | | |
| 4600 | 527 | 579 | 0.42 | 612 | 0.53 | 678 | 0.75 | 813 | 1.29 | 937 | 1.90 | 1059 | 2.61 | | | | | | | | |
| | | 7.7 | | 8.5 | | 10.0 | | 12.8 | | 16.1 | | 19.2 | | | | | | | | | |
| 5300 | 607 | 657 | 0.60 | 687 | 0.72 | 744 | 0.98 | 861 | 1.55 | 974 | 2.20 | 1081 | 2.92 | 1187 | 3.72 | 1292 | 4.58 | | | | |
| | | 9.6 | | 10.1 | | 12.0 | | 13.9 | | 17.2 | | 19.8 | | 22 | | 24 | | | | | |
| 6000 | 688 | 737 | 0.83 | 763 | 0.97 | 814 | 1.25 | 915 | 1.86 | 1020 | 2.57 | 1117 | 3.31 | 1212 | 4.12 | 1306 | 5.02 | 1399 | 5.97 | 1491 | 6.94 |
| | | 11.5 | | 12.2 | | 13.7 | | 15.9 | | 18.2 | | 21 | | 23 | | 25 | | 27 | | 29 | |
| 6700 | 768 | 817 | 1.12 | 840 | 1.27 | 886 | 1.58 | 976 | 2.24 | 1070 | 2.98 | 1162 | 3.79 | 1249 | 4.63 | 1333 | 5.52 | 1418 | 6.50 | 1502 | 7.54 |
| | | 13.7 | | 14.4 | | 15.9 | | 18.6 | | 19.6 | | 22 | | 25 | | 26 | | 28 | | 29 | |
| 7400 | 848 | 898 | 1.47 | 919 | 1.64 | 961 | 1.99 | 1042 | 2.69 | 1125 | 3.46 | 1211 | 4.32 | 1293 | 5.21 | 1371 | 6.13 | 1448 | 7.11 | 1525 | 8.16 |
| | | 16.1 | | 16.8 | | 17.8 | | 21 | | 22 | | 23 | | 26 | | 27 | | 29 | | 31 | |
| 8100 | 928 | 979 | 1.90 | 998 | 2.08 | 1037 | 2.45 | 1112 | 3.22 | 1186 | 4.02 | 1263 | 4.91 | 1342 | 5.87 | 1416 | 6.84 | 1488 | 7.86 | 1558 | 8.90 |
| | | 18.9 | | 19.1 | | 20 | | 23 | | 25 | | 25 | | 27 | | 28 | | 30 | | 32 | |
| 8800 | 1008 | 1060 | 2.39 | 1078 | 2.59 | 1113 | 2.99 | 1183 | 3.82 | 1251 | 4.67 | 1320 | 5.58 | 1393 | 6.58 | 1465 | 7.63 | 1533 | 8.69 | | |
| | | 21 | | 22 | | 23 | | 26 | | 27 | | 28 | | 28 | | 30 | | 32 | | | |
| 9500 | 1089 | 1142 | 2.98 | 1158 | 3.19 | 1191 | 3.62 | 1256 | 4.51 | 1319 | 5.41 | 1382 | 6.35 | 1448 | 7.38 | 1515 | 8.47 | | | | |
| | | 24 | | 25 | | 26 | | 28 | | 31 | | 32 | | 31 | | 31 | | | | | |
| 10200 | 1169 | 1224 | 3.66 | 1239 | 3.88 | 1270 | 4.35 | 1330 | 5.29 | 1390 | 6.26 | 1448 | 7.24 | 1507 | 8.28 | 1569 | 9.40 | | | | |
| | | 27 | | 27 | | 28 | | 30 | | 33 | | 35 | | 35 | | 35 | | | | | |
| 10900 | 1249 | 1305 | 4.42 | 1320 | 4.67 | 1349 | 5.16 | 1406 | 6.17 | 1462 | 7.20 | 1517 | 8.24 | 1571 | 9.30 | | | | | | |
| | | 30 | | 30 | | 32 | | 34 | | 36 | | 39 | | 39 | | | | | | | |
| 11600 | 1329 | 1388 | 5.30 | 1401 | 5.55 | 1428 | 6.08 | 1482 | 7.15 | 1535 | 8.24 | | | | | | | | | | |
| | | 33 | | 33 | | 35 | | 38 | | 39 | | | | | | | | | | | |
| 12300 | 1409 | 1470 | 6.28 | 1482 | 6.55 | 1508 | 7.11 | 1559 | 8.24 | | | | | | | | | | | | |
| | | 36 | | 38 | | 38 | | 41 | | | | | | | | | | | | | |

MAXIMUM RPM: Level 1 — 1183

Level 2 — 1577

MAXIMUM MOTOR FRAME SIZE:

Level 1 = 215T

Level 2 = 256T

NOTES:

1. Performance certified is for Installation Type B: Free inlet, ducted outlet.
2. Power rating (BHP) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301.
5. Values shown are for Installation Type B: Free inlet hemispherical sone levels.

270A1, 270A2Wheel Dia.: 27.00"
Outlet Dia.: 43.38"Max. BHP = 4.25 (RPM ÷ 1000)³
Tip Speed FPM = 7.07 x RPMOutlet Area: 10.26 ft²
Fan Efficiency Grade: FEG60

| CFM | OV | STATIC PRESSURE (INCHES W.G.) | | | | | | | | | | | | | | | |
|-------|------|-------------------------------|------|-------|------|-------|------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | 0.125 | | 0.25 | | 0.50 | | 1.00 | | 1.50 | | 2.00 | | 2.50 | | 3.00 | |
| | | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | |
| 4000 | 390 | 404 | 0.26 | 441 | 0.36 | 519 | 0.59 | 666 | 1.14 | | | | | | | | |
| | | 5.6 | | 6.6 | | 7.5 | | 10.4 | | | | | | | | | |
| 4750 | 463 | 467 | 0.39 | 499 | 0.51 | 562 | 0.75 | 687 | 1.33 | | | | | | | | |
| | | 7.2 | | 8.1 | | 9.1 | | 11.3 | | | | | | | | | |
| 5500 | 536 | 531 | 0.56 | 559 | 0.69 | 613 | 0.97 | 726 | 1.60 | 828 | 2.30 | | | | | | |
| | | 8.8 | | 9.6 | | 11.1 | | 12.6 | | 15.0 | | | | | | | |
| 6250 | 609 | 596 | 0.77 | 621 | 0.93 | 669 | 1.23 | 767 | 1.91 | 863 | 2.66 | 952 | 3.47 | | | | |
| | | 10.7 | | 11.6 | | 13.2 | | 14.5 | | 16.9 | | 18.8 | | | | | |
| 7000 | 682 | 662 | 1.05 | 684 | 1.21 | 727 | 1.55 | 813 | 2.28 | 903 | 3.09 | 985 | 3.95 | 1065 | 4.86 | 1153 | 5.94 |
| | | 13.0 | | 13.3 | | 14.8 | | 16.8 | | 18.6 | | 21 | | 22 | | 24 | |
| 7750 | 755 | 729 | 1.38 | 748 | 1.56 | 788 | 1.94 | 865 | 2.72 | 945 | 3.57 | 1025 | 4.50 | 1097 | 5.44 | 1169 | 6.45 |
| | | 14.8 | | 15.5 | | 16.5 | | 19.6 | | 20 | | 23 | | 24 | | 25 | |
| 8500 | 828 | 795 | 1.78 | 814 | 1.98 | 850 | 2.39 | 920 | 3.23 | 991 | 4.13 | 1066 | 5.11 | 1137 | 6.13 | 1202 | 7.16 |
| | | 17.5 | | 17.5 | | 19.4 | | 23 | | 24 | | 25 | | 26 | | 27 | |
| 9250 | 901 | 862 | 2.25 | 879 | 2.47 | 912 | 2.91 | 978 | 3.83 | 1042 | 4.77 | 1109 | 5.79 | 1178 | 6.88 | 1242 | 7.99 |
| | | 19.5 | | 21 | | 22 | | 25 | | 27 | | 27 | | 28 | | 30 | |
| 10000 | 974 | 930 | 2.81 | 945 | 3.04 | 976 | 3.52 | 1037 | 4.50 | 1096 | 5.50 | 1157 | 6.57 | 1220 | 7.69 | 1283 | 8.87 |
| | | 23 | | 24 | | 25 | | 28 | | 30 | | 31 | | 31 | | 32 | |
| 10750 | 1048 | 997 | 3.44 | 1012 | 3.70 | 1040 | 4.20 | 1097 | 5.25 | 1153 | 6.33 | 1208 | 7.42 | 1265 | 8.59 | 1325 | 9.84 |
| | | 26 | | 27 | | 29 | | 32 | | 34 | | 35 | | 35 | | 35 | |
| 11500 | 1121 | 1065 | 4.18 | 1078 | 4.44 | 1105 | 4.99 | 1158 | 6.10 | 1211 | 7.25 | 1262 | 8.39 | 1315 | 9.62 | 1369 | 10.89 |
| | | 29 | | 30 | | 32 | | 35 | | 37 | | 39 | | 39 | | 39 | |
| 12250 | 1194 | 1133 | 5.02 | 1145 | 5.29 | 1171 | 5.88 | 1221 | 7.06 | 1270 | 8.26 | 1318 | 9.47 | 1367 | 10.74 | | |
| | | 33 | | 34 | | 35 | | 39 | | 41 | | 43 | | 43 | | | |
| 13000 | 1267 | 1200 | 5.95 | 1212 | 6.25 | 1236 | 6.86 | 1283 | 8.10 | 1330 | 9.38 | 1376 | 10.67 | | | | |
| | | 37 | | 37 | | 39 | | 41 | | 44 | | 46 | | | | | |
| 13750 | 1340 | 1268 | 7.00 | 1280 | 7.33 | 1302 | 7.97 | 1347 | 9.29 | 1391 | 10.62 | | | | | | |
| | | 41 | | 41 | | 42 | | 45 | | 48 | | | | | | | |

MAXIMUM RPM: Level 1 — 1048

Level 2 — 1397

MAXIMUM MOTOR FRAME SIZE:

Level 1 = 215T

Level 2 = 284T

300A1, 300A2Wheel Dia.: 30.00"
Outlet Dia.: 48.63"Max. BHP = 7.19 (RPM ÷ 1000)³
Tip Speed FPM = 7.85 x RPMOutlet Area: 12.90 ft²
Fan Efficiency Grade: FEG60

| CFM | OV | STATIC PRESSURE (INCHES W.G.) | | | | | | | | | | | | | | | |
|-------|------|-------------------------------|------|-------|------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | 0.125 | | 0.25 | | 0.50 | | 1.00 | | 1.50 | | 2.00 | | 2.50 | | 3.00 | |
| | | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | |
| 4700 | 364 | 350 | 0.29 | 385 | 0.41 | 458 | 0.68 | | | | | | | | | | |
| | | 5.3 | | 6.2 | | 7.3 | | | | | | | | | | | |
| 5600 | 434 | 404 | 0.43 | 434 | 0.57 | 494 | 0.87 | 610 | 1.56 | | | | | | | | |
| | | 6.8 | | 7.9 | | 8.8 | | 11.2 | | | | | | | | | |
| 6500 | 504 | 460 | 0.62 | 486 | 0.78 | 537 | 1.11 | 642 | 1.86 | 739 | 2.72 | | | | | | |
| | | 8.5 | | 9.3 | | 10.9 | | 12.6 | | 15.3 | | | | | | | |
| 7400 | 574 | 516 | 0.86 | 539 | 1.03 | 584 | 1.40 | 678 | 2.23 | 764 | 3.11 | 851 | 4.14 | | | | |
| | | 10.3 | | 10.9 | | 13.0 | | 14.3 | | 16.7 | | 19.2 | | | | | |
| 8300 | 644 | 574 | 1.16 | 595 | 1.36 | 635 | 1.77 | 716 | 2.64 | 799 | 3.61 | 874 | 4.64 | 952 | 5.80 | | |
| | | 12.3 | | 13.3 | | 14.7 | | 16.0 | | 18.5 | | 21 | | 23 | | | |
| 9200 | 713 | 632 | 1.53 | 651 | 1.75 | 687 | 2.19 | 759 | 3.13 | 835 | 4.16 | 908 | 5.28 | 975 | 6.42 | 1045 | 7.70 |
| | | 14.1 | | 14.8 | | 16.5 | | 18.9 | | 19.8 | | 22 | | 24 | | 26 | |
| 10100 | 783 | 690 | 1.97 | 707 | 2.21 | 741 | 2.70 | 807 | 3.71 | 874 | 4.80 | 944 | 5.99 | 1008 | 7.20 | 1068 | 8.45 |
| | | 16.5 | | 17.3 | | 18.3 | | 21 | | 22 | | 24 | | 26 | | 27 | |
| 11000 | 853 | 749 | 2.50 | 764 | 2.76 | 795 | 3.28 | 856 | 4.37 | 917 | 5.52 | 980 | 6.75 | 1043 | 8.05 | 1101 | 9.38 |
| | | 18.9 | | 19.3 | | 21 | | 24 | | 26 | | 26 | | 28 | | 30 | |
| 11900 | 923 | 808 | 3.13 | 822 | 3.40 | 851 | 3.97 | 907 | 5.13 | 963 | 6.34 | 1020 | 7.63 | 1079 | 8.99 | 1137 | 10.42 |
| | | 21 | | 22 | | 23 | | 27 | | 29 | | 30 | | 31 | | 32 | |
| 12800 | 993 | 867 | 3.84 | 880 | 4.14 | 907 | 4.75 | 960 | 6.00 | 1011 | 7.27 | 1063 | 8.60 | 1118 | 10.04 | 1173 | 11.53 |
| | | 24 | | 25 | | 27 | | 30 | | 32 | | 33 | | 34 | | 34 | |
| 13700 | 1062 | 926 | 4.66 | 938 | 4.97 | 963 | 5.62 | 1013 | 6.96 | 1061 | 8.31 | 1110 | 9.72 | 1159 | 11.18 | 1210 | 12.72 |
| | | 27 | | 28 | | 30 | | 33 | | 35 | | 37 | | 38 | | 38 | |
| 14600 | 1132 | 985 | 5.59 | 997 | 5.94 | 1020 | 6.62 | 1067 | 8.04 | 1113 | 9.48 | 1158 | 10.94 | 1203 | 12.44 | 1250 | 14.04 |
| | | 31 | | 31 | | 33 | | 36 | | 39 | | 41 | | 42 | | 42 | |
| 15500 | 1202 | 1044 | 6.64 | 1055 | 7.00 | 1077 | 7.73 | 1121 | 9.21 | 1165 | 10.75 | 1208 | 12.30 | 1250 | 13.86 | | |
| | | 34 | | 35 | | 36 | | 40 | | 43 | | 45 | | 47 | | | |
| 16400 | 1272 | 1104 | 7.84 | 1114 | 8.21 | 1135 | 8.98 | 1177 | 10.56 | 1218 | 12.15 | | | | | | |
| | | 38 | | 38 | | 41 | | 43 | | 47 | | | | | | | |

MAXIMUM RPM: Level 1 — 943

Level 2 — 1257

MAXIMUM MOTOR FRAME SIZE:

Level 1 = 215T

Level 2 = 284T

NOTES:

- Performance certified is for Installation Type B: Free inlet, ducted outlet.
- Power rating (BHP) does not include transmission losses.
- Performance ratings do not include the effects of appurtenances (accessories).
- The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301.
- Values shown are for Installation Type B: Free inlet hemispherical sone levels.

330A1, 330A2Wheel Dia.: 33.00"
Outlet Dia.: 52.00"Max. BHP = 11.31 (RPM ÷ 1000)³
Tip Speed FPM = 8.64 x RPMOutlet Area: 14.75 ft²
Fan Efficiency Grade: FEG60

| CFM | OV | STATIC PRESSURE (INCHES W.G.) | | | | | | | | | | | | | | | | | | | |
|-------|------|-------------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | 0.125 | | 0.25 | | 0.50 | | 1.00 | | 1.50 | | 2.00 | | 2.50 | | 3.00 | | 3.50 | | 4.00 | |
| | | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | |
| 5800 | 393 | 325 | 0.36 | 358 | 0.51 | 421 | 0.84 | | | | | | | | | | | | | | |
| | | 4.9 | | 5.8 | | 7.1 | | | | | | | | | | | | | | | |
| 6900 | 468 | 375 | 0.54 | 402 | 0.70 | 457 | 1.08 | 564 | 1.96 | | | | | | | | | | | | |
| | | 6.6 | | 7.6 | | 8.3 | | 11.5 | | | | | | | | | | | | | |
| 8000 | 542 | 426 | 0.77 | 450 | 0.96 | 498 | 1.38 | 590 | 2.31 | 683 | 3.39 | | | | | | | | | | |
| | | 8.7 | | 9.6 | | 10.4 | | 12.4 | | 15.3 | | | | | | | | | | | |
| 9100 | 617 | 478 | 1.07 | 500 | 1.29 | 542 | 1.74 | 624 | 2.75 | 705 | 3.90 | 787 | 5.15 | | | | | | | | |
| | | 10.4 | | 11.1 | | 12.5 | | 13.9 | | 16.8 | | 19.4 | | | | | | | | | |
| 10200 | 692 | 531 | 1.45 | 550 | 1.69 | 588 | 2.18 | 662 | 3.27 | 734 | 4.46 | 806 | 5.79 | 880 | 7.20 | | | | | | |
| | | 12.5 | | 13.2 | | 14.8 | | 15.5 | | 18.4 | | 21 | | 22 | | | | | | | |
| 11300 | 766 | 585 | 1.92 | 602 | 2.18 | 636 | 2.71 | 704 | 3.90 | 769 | 5.15 | 834 | 6.52 | 899 | 8.01 | 966 | 9.59 | | | | |
| | | 14.4 | | 14.7 | | 16.5 | | 18.5 | | 20 | | 22 | | 24 | | 25 | | | | | |
| 12400 | 841 | 639 | 2.49 | 654 | 2.76 | 685 | 3.34 | 747 | 4.59 | 808 | 5.95 | 867 | 7.37 | 926 | 8.90 | 986 | 10.57 | 1046 | 12.28 | 1109 | 14.03 |
| | | 16.5 | | 17.0 | | 18.4 | | 22 | | 22 | | 24 | | 26 | | 26 | | 28 | | 31 | |
| 13500 | 915 | 693 | 3.16 | 707 | 3.45 | 735 | 4.06 | 792 | 5.40 | 849 | 6.85 | 904 | 8.36 | 958 | 9.93 | 1012 | 11.61 | 1067 | 13.43 | 1122 | 15.28 |
| | | 19.2 | | 19.4 | | 21 | | 24 | | 25 | | 25 | | 27 | | 29 | | 30 | | 32 | |
| 14600 | 990 | 747 | 3.94 | 760 | 4.25 | 786 | 4.91 | 839 | 6.33 | 892 | 7.87 | 943 | 9.45 | 993 | 11.08 | 1044 | 12.84 | 1094 | 14.67 | | |
| | | 22 | | 22 | | 24 | | 27 | | 28 | | 29 | | 29 | | 31 | | 33 | | | |
| 15700 | 1064 | 801 | 4.84 | 813 | 5.17 | 838 | 5.89 | 887 | 7.38 | 936 | 8.99 | 985 | 10.69 | 1032 | 12.41 | 1078 | 14.18 | 1125 | 16.07 | | |
| | | 25 | | 25 | | 27 | | 30 | | 31 | | 33 | | 32 | | 33 | | 35 | | | |
| 16800 | 1139 | 856 | 5.89 | 867 | 6.24 | 890 | 6.99 | 936 | 8.57 | 982 | 10.26 | 1027 | 12.01 | 1072 | 13.85 | 1116 | 15.72 | | | | |
| | | 28 | | 28 | | 30 | | 32 | | 34 | | 35 | | 36 | | 36 | | | | | |
| 17900 | 1214 | 910 | 7.05 | 921 | 7.45 | 942 | 8.23 | 985 | 9.88 | 1028 | 11.64 | 1071 | 13.49 | 1114 | 15.43 | | | | | | |
| | | 30 | | 31 | | 32 | | 34 | | 37 | | 39 | | 39 | | | | | | | |
| 19000 | 1288 | 965 | 8.39 | 975 | 8.80 | 995 | 9.63 | 1036 | 11.39 | 1076 | 13.20 | 1117 | 15.15 | | | | | | | | |
| | | 34 | | 34 | | 34 | | 37 | | 40 | | 42 | | | | | | | | | |
| 20100 | 1363 | 1020 | 9.89 | 1029 | 10.31 | 1048 | 11.19 | 1087 | 13.04 | 1125 | 14.94 | | | | | | | | | | |
| | | 37 | | 37 | | 39 | | 40 | | 43 | | | | | | | | | | | |

MAXIMUM RPM: Level 1 — 857

Level 2 — 1143

MAXIMUM MOTOR FRAME SIZE:

Level 1 = 215T

Level 2 = 286T

365A1, 365A2Wheel Dia.: 36.50"
Outlet Dia.: 54.63"Max. BHP = 18.48 (RPM ÷ 1000)³
Tip Speed FPM = 9.56 x RPMOutlet Area: 16.27 ft²
Fan Efficiency Grade: FEG56

| CFM | OV | STATIC PRESSURE (INCHES W.G.) | | | | | | | | | | | | | | | | | | | |
|-------|------|-------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|
| | | 0.125 | | 0.25 | | 0.50 | | 1.00 | | 1.50 | | 2.00 | | 2.50 | | 3.00 | | 3.50 | | 4.00 | |
| | | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | |
| 7100 | 436 | 296 | 0.45 | 326 | 0.63 | 387 | 1.06 | | | | | | | | | | | | | | |
| | | 5.0 | | 5.7 | | 6.6 | | | | | | | | | | | | | | | |
| 8400 | 516 | 339 | 0.66 | 365 | 0.87 | 417 | 1.34 | 513 | 2.40 | | | | | | | | | | | | |
| | | 6.6 | | 7.4 | | 8.1 | | 10.0 | | | | | | | | | | | | | |
| 9700 | 596 | 384 | 0.93 | 407 | 1.17 | 451 | 1.69 | 539 | 2.85 | | | | | | | | | | | | |
| | | 8.6 | | 9.7 | | 10.4 | | 11.4 | | | | | | | | | | | | | |
| 10000 | 614 | 395 | 1.01 | 417 | 1.26 | 460 | 1.78 | 546 | 2.97 | | | | | | | | | | | | |
| | | 9.0 | | 10.2 | | 11.0 | | 11.7 | | | | | | | | | | | | | |
| 12300 | 756 | 476 | 1.73 | 494 | 2.02 | 530 | 2.64 | 600 | 3.99 | 670 | 5.49 | 732 | 7.04 | | | | | | | | |
| | | 12.6 | | 13.4 | | 14.6 | | 15.0 | | 16.5 | | 18.5 | | | | | | | | | |
| 13600 | 836 | 523 | 2.27 | 539 | 2.58 | 572 | 3.26 | 635 | 4.71 | 699 | 6.29 | 759 | 7.96 | 816 | 9.72 | | | | | | |
| | | 14.6 | | 15.2 | | 16.4 | | 17.7 | | 18.5 | | 21 | | 23 | | | | | | | |
| 14900 | 916 | 570 | 2.91 | 585 | 3.26 | 615 | 3.99 | 672 | 5.52 | 731 | 7.22 | 789 | 9.01 | 842 | 10.85 | 894 | 12.79 | | | | |
| | | 16.4 | | 17.2 | | 18.8 | | 21 | | 21 | | 23 | | 25 | | 26 | | | | | |
| 16200 | 995 | 617 | 3.67 | 631 | 4.05 | 658 | 4.82 | 712 | 6.48 | 765 | 8.25 | 819 | 10.13 | 872 | 12.13 | 920 | 14.14 | 967 | 16.21 | | |
| | | 18.8 | | 18.9 | | 21 | | 24 | | 25 | | 26 | | 28 | | 28 | | 30 | | | |
| 17500 | 1075 | 664 | 4.55 | 677 | 4.96 | 703 | 5.81 | 753 | 7.57 | 801 | 9.40 | 851 | 11.38 | 902 | 13.51 | 949 | 15.62 | 993 | 17.79 | | |
| | | 21 | | 22 | | 24 | | 27 | | 29 | | 30 | | 31 | | 32 | | 33 | | | |
| 18800 | 1155 | 712 | 5.59 | 724 | 6.02 | 748 | 6.92 | 794 | 8.76 | 840 | 10.73 | 886 | 12.81 | 933 | 15.00 | 979 | 17.25 | | | | |
| | | 24 | | 25 | | 27 | | 31 | | 33 | | 34 | | 33 | | 35 | | | | | |
| 20100 | 1235 | 760 | 6.77 | 771 | 7.23 | 793 | 8.17 | 837 | 10.15 | 880 | 12.21 | 922 | 14.34 | 966 | 16.64 | | | | | | |
| | | 28 | | 28 | | 30 | | 34 | | 37 | | 38 | | 38 | | | | | | | |
| 21400 | 1315 | 807 | 8.09 | 818 | 8.59 | 839 | 9.60 | 880 | 11.67 | 921 | 13.85 | 961 | 16.11 | | | | | | | | |
| | | 31 | | 33 | | 34 | | 38 | | 40 | | 42 | | | | | | | | | |
| 22700 | 1395 | 855 | 9.59 | 865 | 10.12 | 885 | 11.19 | 924 | 13.37 | 962 | 15.62 | | | | | | | | | | |
| | | 35 | | 36 | | 38 | | 41 | | 45 | | | | | | | | | | | |
| 24000 | 1475 | 903 | 11.28 | 912 | 11.81 | 931 | 12.94 | 968 | 15.24 | | | | | | | | | | | | |
| | | 40 | | 40 | | 41 | | 44 | | | | | | | | | | | | | |

MAXIMUM RPM: Level 1 — 746

Level 2 — 995

MAXIMUM MOTOR FRAME SIZE:

Level 1 = 256T

Level 2 = 286T

NOTES:

- Performance certified is for Installation Type B: Free inlet, ducted outlet.
- Power rating (BHP) does not include transmission losses.
- Performance ratings do not include the effects of appurtenances (accessories).
- The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301.
- Values shown are for Installation Type B: Free inlet hemispherical sone levels.

402A1, 402A2Wheel Dia.: 40.25"
Outlet Dia.: 60.63"Max. BHP = 30.12 (RPM ÷ 1000)³
Tip Speed FPM = 10.54 x RPMOutlet Area: 20.05 ft²
Fan Efficiency Grade: FEG56

| CFM | OV | STATIC PRESSURE (INCHES W.G.) | | | | | | | | | | | | | |
|-------|------|-------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | 0.125 | | 0.25 | | 0.50 | | 1.00 | | 1.50 | | 2.00 | | 2.50 | |
| | | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | |
| 9800 | 489 | 297 | 0.72 | 322 | 0.98 | 371 | 1.54 | | | | | | | | |
| | | 6.1 | | 6.9 | | 7.5 | | | | | | | | | |
| 11200 | 559 | 333 | 1.00 | 355 | 1.28 | 397 | 1.88 | 479 | 3.25 | | | | | | |
| | | 7.7 | | 8.6 | | 9.4 | | 11.4 | | | | | | | |
| 12600 | 629 | 370 | 1.35 | 389 | 1.65 | 426 | 2.30 | 502 | 3.78 | 571 | 5.40 | | | | |
| | | 9.4 | | 10.5 | | 12.1 | | 12.8 | | 14.4 | | | | | |
| 14000 | 698 | 406 | 1.76 | 424 | 2.10 | 458 | 2.81 | 527 | 4.40 | 591 | 6.12 | | | | |
| | | 11.8 | | 12.7 | | 14.2 | | 13.9 | | 16.0 | | | | | |
| 15400 | 768 | 444 | 2.28 | 460 | 2.64 | 491 | 3.41 | 553 | 5.09 | 615 | 6.94 | 670 | 8.86 | | |
| | | 14.1 | | 14.5 | | 16.1 | | 16.3 | | 17.2 | | 19.0 | | | |
| 16800 | 838 | 481 | 2.87 | 496 | 3.27 | 525 | 4.10 | 581 | 5.87 | 639 | 7.84 | 693 | 9.90 | 743 | 12.02 |
| | | 14.4 | | 16.1 | | 17.5 | | 18.7 | | 19.0 | | 21 | | 23 | |
| 18200 | 908 | 519 | 3.58 | 533 | 4.02 | 559 | 4.89 | 611 | 6.76 | 664 | 8.82 | 717 | 11.03 | 765 | 13.28 |
| | | 17.2 | | 18.0 | | 19.3 | | 21 | | 21 | | 23 | | 25 | |
| 19600 | 978 | 557 | 4.40 | 570 | 4.87 | 595 | 5.82 | 643 | 7.79 | 691 | 9.92 | 741 | 12.23 | 789 | 14.65 |
| | | 19.3 | | 19.6 | | 21 | | 23 | | 24 | | 25 | | 27 | |
| 21000 | 1048 | 595 | 5.34 | 607 | 5.84 | 630 | 6.83 | 676 | 8.95 | 721 | 11.19 | 767 | 13.59 | 813 | 16.11 |
| | | 21 | | 21 | | 22 | | 26 | | 27 | | 28 | | 30 | |
| 22400 | 1117 | 633 | 6.41 | 644 | 6.93 | 666 | 7.99 | 709 | 10.21 | 751 | 12.54 | 794 | 15.05 | 837 | 17.65 |
| | | 23 | | 24 | | 25 | | 29 | | 32 | | 32 | | 34 | |
| 23800 | 1187 | 671 | 7.61 | 682 | 8.18 | 702 | 9.28 | 743 | 11.63 | 783 | 14.09 | 823 | 16.68 | 863 | 19.36 |
| | | 26 | | 26 | | 28 | | 32 | | 35 | | 36 | | 36 | |
| 25200 | 1257 | 710 | 8.99 | 719 | 9.54 | 739 | 10.74 | 778 | 13.22 | 816 | 15.80 | 853 | 18.45 | 891 | 21.26 |
| | | 29 | | 29 | | 32 | | 36 | | 38 | | 40 | | 41 | |
| 26600 | 1327 | 748 | 10.49 | 757 | 11.09 | 776 | 12.35 | 813 | 14.94 | 849 | 17.63 | 884 | 20.38 | | |
| | | 32 | | 34 | | 36 | | 38 | | 42 | | 45 | | | |
| 28000 | 1397 | 786 | 12.15 | 795 | 12.80 | 813 | 14.12 | 848 | 16.82 | 882 | 19.59 | | | | |
| | | 36 | | 36 | | 38 | | 43 | | 46 | | | | | |

MAXIMUM RPM: Level 1 — 677

Level 2 — 903

MAXIMUM MOTOR FRAME SIZE:

Level 1 = 256T

Level 2 = 286T

445A1, 445A2Wheel Dia.: 44.50"
Outlet Dia.: 66.75"Max. BHP = 49.74 (RPM ÷ 1000)³
Tip Speed FPM = 11.65 x RPMOutlet Area: 24.30 ft²
Fan Efficiency Grade: FEG56

| CFM | OV | STATIC PRESSURE (INCHES W.G.) | | | | | | | | | | | | | |
|-------|------|-------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | 0.125 | | 0.25 | | 0.50 | | 1.00 | | 1.50 | | 2.00 | | 2.50 | |
| | | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | |
| 12000 | 494 | 269 | 0.89 | 291 | 1.19 | 335 | 1.87 | | | | | | | | |
| | | 6.2 | | 7.1 | | 7.5 | | | | | | | | | |
| 13900 | 572 | 305 | 1.27 | 325 | 1.62 | 362 | 2.35 | 435 | 4.03 | | | | | | |
| | | 7.8 | | 8.8 | | 9.7 | | 12.2 | | | | | | | |
| 15800 | 650 | 342 | 1.75 | 359 | 2.14 | 392 | 2.95 | 459 | 4.78 | 520 | 6.79 | | | | |
| | | 9.7 | | 10.8 | | 12.4 | | 13.8 | | 15.3 | | | | | |
| 17700 | 728 | 379 | 2.35 | 395 | 2.79 | 424 | 3.66 | 484 | 5.64 | 542 | 7.82 | 595 | 10.08 | | |
| | | 12.2 | | 13.6 | | 15.3 | | 15.3 | | 17.1 | | 18.4 | | | |
| 19600 | 807 | 417 | 3.10 | 431 | 3.57 | 458 | 4.54 | 511 | 6.62 | 566 | 8.97 | 615 | 11.38 | 664 | 13.96 |
| | | 15.0 | | 16.0 | | 17.2 | | 18.2 | | 18.7 | | 20 | | 21 | |
| 21500 | 885 | 455 | 4.00 | 467 | 4.49 | 492 | 5.53 | 541 | 7.79 | 591 | 10.27 | 639 | 12.86 | 683 | 15.55 |
| | | 17.1 | | 18.0 | | 19.3 | | 21 | | 20 | | 22 | | 24 | |
| 23400 | 963 | 493 | 5.05 | 504 | 5.58 | 527 | 6.70 | 572 | 9.09 | 617 | 11.68 | 663 | 14.45 | 706 | 17.31 |
| | | 19.3 | | 19.8 | | 21 | | 23 | | 23 | | 24 | | 26 | |
| 25300 | 1041 | 531 | 6.28 | 542 | 6.88 | 563 | 8.07 | 605 | 10.62 | 646 | 13.32 | 688 | 16.20 | 731 | 19.33 |
| | | 22 | | 22 | | 23 | | 25 | | 26 | | 26 | | 29 | |
| 27200 | 1119 | 569 | 7.69 | 579 | 8.32 | 599 | 9.61 | 638 | 12.30 | 677 | 15.19 | 715 | 18.16 | 755 | 21.39 |
| | | 23 | | 24 | | 25 | | 29 | | 30 | | 31 | | 32 | |
| 29100 | 1197 | 607 | 9.31 | 617 | 10.01 | 636 | 11.40 | 672 | 14.21 | 708 | 17.20 | 744 | 20.36 | 781 | 23.70 |
| | | 25 | | 27 | | 29 | | 31 | | 34 | | 35 | | 36 | |
| 31000 | 1276 | 646 | 11.18 | 655 | 11.91 | 672 | 13.33 | 707 | 16.37 | 741 | 19.52 | 775 | 22.84 | 808 | 26.18 |
| | | 29 | | 29 | | 31 | | 35 | | 39 | | 40 | | 42 | |
| 32900 | 1354 | 684 | 13.24 | 693 | 14.04 | 709 | 15.54 | 742 | 18.73 | 774 | 22.02 | 806 | 25.47 | | |
| | | 32 | | 33 | | 35 | | 39 | | 43 | | 45 | | | |
| 34800 | 1432 | 723 | 15.61 | 731 | 16.41 | 747 | 18.06 | 778 | 21.39 | 808 | 24.80 | | | | |
| | | 37 | | 37 | | 39 | | 44 | | 46 | | | | | |
| 36700 | 1510 | 761 | 18.17 | 769 | 19.04 | 784 | 20.75 | 814 | 24.30 | | | | | | |
| | | 41 | | 42 | | 44 | | 47 | | | | | | | |

MAXIMUM RPM: Level 1 — 613

Level 2 — 817

MAXIMUM MOTOR FRAME SIZE:

Level 1 = 284T

Level 2 = 324T

NOTES:

- Performance certified is for Installation Type B: Free inlet, ducted outlet.
- Power rating (BHP) does not include transmission losses.
- Performance ratings do not include the effects of appurtenances (accessories).
- The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301.
- Values shown are for Installation Type B: Free inlet hemispherical sone levels.

490A1, 490A2

Wheel Dia.: 49.00"
Outlet Dia.: 72.75"

Max. BHP = 80.56 (RPM ÷ 1000)³
Tip Speed FPM = 12.83 x RPM

Outlet Area: 28.87 ft²
Fan Efficiency Grade: FEG56

| CFM | OV | STATIC PRESSURE (INCHES W.G.) | | | | | | | | | | | | | | | | | | | |
|-------|------|-------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|
| | | 0.125 | | 0.25 | | 0.50 | | 1.00 | | 1.50 | | 2.00 | | 2.50 | | 3.00 | | 3.50 | | 4.00 | |
| | | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP | RPM | BHP |
| | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | | Sones | |
| 14400 | 499 | 242 | 1.05 | 263 | 1.43 | 303 | 2.24 | | | | | | | | | | | | | | |
| | | 6.3 | | 7.0 | | 7.5 | | | | | | | | | | | | | | | |
| 16500 | 572 | 272 | 1.46 | 290 | 1.87 | 325 | 2.76 | 392 | 4.76 | | | | | | | | | | | | |
| | | 7.8 | | 8.6 | | 9.2 | | 11.8 | | | | | | | | | | | | | |
| 18600 | 644 | 302 | 1.96 | 318 | 2.42 | 349 | 3.38 | 412 | 5.58 | 468 | 7.94 | | | | | | | | | | |
| | | 9.3 | | 10.6 | | 11.9 | | 13.4 | | 15.7 | | | | | | | | | | | |
| 20700 | 717 | 333 | 2.59 | 348 | 3.11 | 376 | 4.16 | 432 | 6.48 | 485 | 9.04 | | | | | | | | | | |
| | | 11.2 | | 12.4 | | 14.3 | | 15.5 | | 17.0 | | | | | | | | | | | |
| 22800 | 790 | 364 | 3.35 | 377 | 3.89 | 403 | 5.04 | 454 | 7.53 | 505 | 10.28 | 550 | 13.10 | | | | | | | | |
| | | 13.9 | | 14.8 | | 16.5 | | 17.5 | | 18.6 | | 20 | | | | | | | | | |
| 24900 | 863 | 395 | 4.25 | 407 | 4.84 | 431 | 6.07 | 477 | 8.69 | 525 | 11.63 | 569 | 14.65 | 610 | 17.78 | | | | | | |
| | | 16.3 | | 17.2 | | 19.1 | | 20 | | 19.9 | | 22 | | 23 | | | | | | | |
| 27000 | 935 | 427 | 5.33 | 438 | 5.96 | 460 | 7.28 | 503 | 10.08 | 546 | 13.11 | 589 | 16.34 | 629 | 19.73 | 667 | 23.19 | | | | |
| | | 18.9 | | 19.3 | | 21 | | 22 | | 22 | | 23 | | 25 | | 27 | | | | | |
| 29100 | 1008 | 458 | 6.55 | 469 | 7.25 | 489 | 8.63 | 529 | 11.60 | 569 | 14.80 | 609 | 18.16 | 649 | 21.80 | 684 | 25.34 | 720 | 29.15 | | |
| | | 21 | | 22 | | 23 | | 25 | | 25 | | 25 | | 27 | | 28 | | 30 | | | |
| 31200 | 1081 | 490 | 7.98 | 500 | 8.72 | 519 | 10.21 | 556 | 13.31 | 593 | 16.65 | 631 | 20.24 | 668 | 23.90 | 704 | 27.78 | 737 | 31.67 | | |
| | | 23 | | 23 | | 25 | | 27 | | 27 | | 27 | | 29 | | 30 | | 33 | | | |
| 33300 | 1154 | 522 | 9.61 | 531 | 10.38 | 549 | 11.96 | 584 | 15.25 | 618 | 18.68 | 653 | 22.39 | 689 | 26.32 | 724 | 30.37 | | | | |
| | | 25 | | 26 | | 27 | | 30 | | 30 | | 31 | | 31 | | 33 | | | | | |
| 35400 | 1226 | 553 | 11.39 | 562 | 12.24 | 579 | 13.91 | 612 | 17.36 | 645 | 21.04 | 677 | 24.82 | 710 | 28.83 | | | | | | |
| | | 27 | | 28 | | 29 | | 32 | | 33 | | 35 | | 35 | | | | | | | |
| 37500 | 1299 | 585 | 13.45 | 593 | 14.31 | 609 | 16.07 | 641 | 19.75 | 672 | 23.57 | 702 | 27.48 | 733 | 31.65 | | | | | | |
| | | 30 | | 30 | | 31 | | 34 | | 37 | | 38 | | 40 | | | | | | | |
| 39600 | 1372 | 617 | 15.74 | 625 | 16.68 | 640 | 18.52 | 670 | 22.35 | 700 | 26.40 | 728 | 30.41 | | | | | | | | |
| | | 32 | | 32 | | 34 | | 37 | | 41 | | 43 | | | | | | | | | |
| 41700 | 1445 | 649 | 18.28 | 656 | 19.22 | 671 | 21.21 | 699 | 25.16 | 728 | 29.42 | | | | | | | | | | |
| | | 35 | | 35 | | 38 | | 41 | | 45 | | | | | | | | | | | |

MAXIMUM RPM: Level 1 — 557

Level 2 — 742

MAXIMUM MOTOR FRAME SIZE:

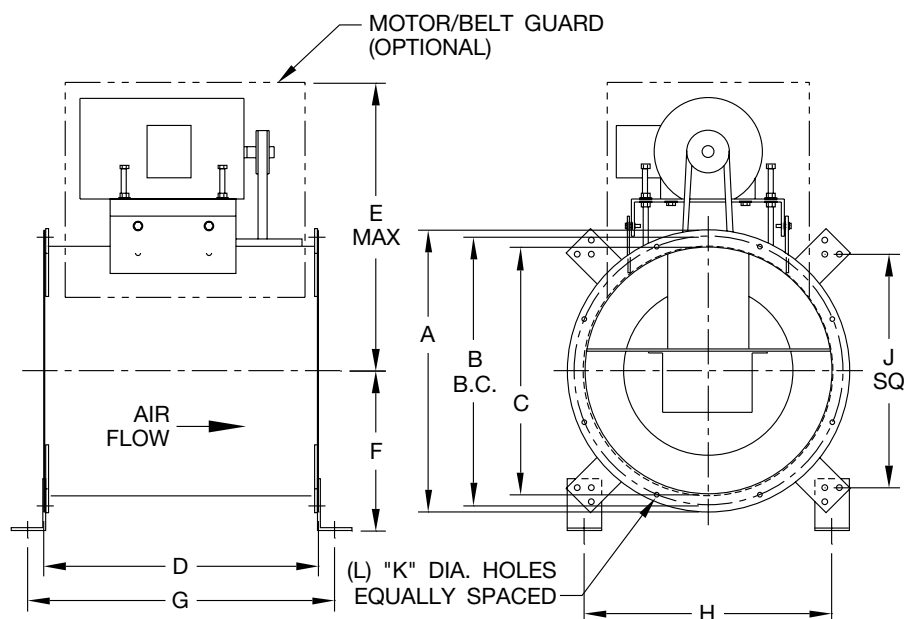
Level 1 = 284T

Level 2 = 326T

NOTES:

1. Performance certified is for Installation Type B: Free inlet, ducted outlet.
2. Power rating (BHP) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound ratings shown are loudness values in fan sones at 5 ft. (1.5 m) in a hemispherical free field calculated per AMCA Standard 301.
5. Values shown are for Installation Type B: Free inlet hemispherical sone levels.

Horizontal & Vertical



| FAN SIZE | A | B | C | D | E | F | G | H | J | L | K | SHAFT DIA (IN.) | | MAX. MOTOR FRAME | | AVERAGE SHIP WT. (LBS.) | |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----|------|-----------------|-------|------------------|------|-------------------------|------|
| | | | | | | | | | | | | LV 1 | LV 2 | LV 1 | LV 2 | LV 1 | LV 2 |
| 90/105 | 19.63 | 17.88 | 16.13 | 19.50 | 21.00 | 11.50 | 22.25 | 17.88 | 16.68 | 8 | 0.56 | 0.750 | 1.000 | 56 | 145T | 140 | 158 |
| 122 | 21.75 | 19.88 | 18.25 | 20.50 | 22.50 | 12.38 | 23.25 | 19.50 | 18.25 | 8 | 0.56 | 0.750 | 1.000 | 143T | 184T | 161 | 231 |
| 135 | 24.75 | 22.88 | 21.25 | 23.00 | 25.25 | 13.38 | 25.75 | 21.50 | 20.25 | 8 | 0.56 | 0.750 | 1.000 | 145T | 184T | 181 | 261 |
| 150 | 25.69 | 23.94 | 22.19 | 24.00 | 26.50 | 13.75 | 26.75 | 22.25 | 21.00 | 8 | 0.56 | 0.750 | 1.000 | 184T | 215T | 195 | 270 |
| 165 | 27.75 | 25.88 | 24.25 | 25.00 | 28.50 | 14.50 | 27.75 | 23.63 | 22.44 | 8 | 0.56 | 0.750 | 1.188 | 184T | 215T | 272 | 287 |
| 182 | 33.88 | 32.00 | 30.38 | 29.00 | 30.75 | 18.63 | 31.75 | 28.00 | 26.75 | 8 | 0.56 | 1.000 | 1.188 | 184T | 215T | 324 | 380 |
| 200 | 37.47 | 35.25 | 33.47 | 32.00 | 33.00 | 19.75 | 34.75 | 30.19 | 29.00 | 8 | 0.69 | 1.000 | 1.438 | 215T | 215T | 358 | 419 |
| 222 | 40.50 | 38.38 | 36.50 | 34.00 | 36.50 | 20.81 | 36.75 | 32.38 | 31.13 | 16 | 0.69 | 1.000 | 1.438 | 215T | 215T | 440 | 525 |
| 245 | 44.00 | 42.25 | 40.00 | 37.00 | 38.75 | 24.00 | 39.75 | 34.88 | 33.63 | 16 | 0.69 | 1.000 | 1.438 | 215T | 256T | 507 | 592 |
| 270 | 47.38 | 45.63 | 43.38 | 40.00 | 41.00 | 25.25 | 42.75 | 37.25 | 36.00 | 16 | 0.69 | 1.188 | 1.438 | 215T | 256T | 566 | 733 |
| 300 | 52.63 | 50.63 | 48.63 | 44.00 | 44.25 | 27.13 | 46.75 | 41.00 | 39.75 | 16 | 0.69 | 1.188 | 1.688 | 215T | 284T | 774 | 907 |
| 330 | 56.00 | 54.25 | 52.00 | 49.00 | 46.25 | 29.75 | 51.75 | 43.38 | 42.00 | 16 | 0.69 | 1.438 | 1.938 | 215T | 284T | 902 | 1046 |
| 365 | 58.63 | 57.25 | 54.63 | 52.50 | 48.00 | 30.75 | 55.25 | 45.13 | 44.00 | 16 | 0.69 | 1.438 | 2.188 | 256T | 286T | 1039 | 1159 |
| 402 | 64.63 | 62.81 | 60.63 | 56.00 | 51.50 | 33.00 | 58.38 | 49.63 | 49.63 | 16 | 0.69 | 1.688 | 2.438 | 256T | 286T | 1191 | 1412 |
| 445 | 71.75 | 70.00 | 66.75 | 60.00 | 56.25 | 36.50 | 62.75 | 53.63 | 52.44 | 16 | 0.69 | 1.938 | 2.438 | 284T | 324T | 1508 | 1668 |
| 490 | 77.75 | 75.25 | 72.75 | 63.50 | 59.63 | 39.50 | 66.25 | 58.13 | 56.88 | 16 | 0.69 | 2.188 | 2.438 | 284T | 326T | 1692 | 2072 |

D4215B

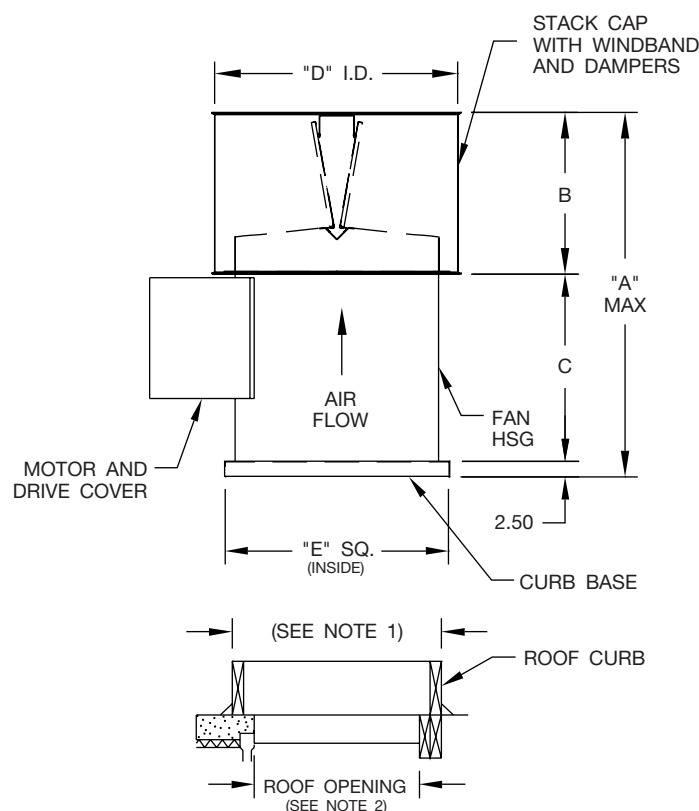
Dimensions shown are in inches unless otherwise indicated.

Dimensions are not to be used for construction.

NOTE:

1. Fan shown in horizontal shipping position, universal mounting brackets allow for other mounting configurations.

Vertical Roof Mounted



| FAN SIZE | A | B | C | D | E | STD. ROOF CURB SIZE | SHAFT DIA (IN.) | | MAX. MOTOR FRAME | | AVERAGE SHIP WT. (LBS.) | |
|----------|--------|-------|-------|-------|-------|---------------------|-----------------|---------|------------------|---------|-------------------------|---------|
| | | | | | | | LEVEL 1 | LEVEL 2 | LEVEL 1 | LEVEL 2 | LEVEL 1 | LEVEL 2 |
| 90/105 | 39.13 | 17.75 | 18.88 | 22.25 | 20.00 | 18.50 x 18.50 | 0.750 | 1.000 | 56 | 145T | 197 | 215 |
| 122 | 41.13 | 18.75 | 19.88 | 24.31 | 22.00 | 20.50 x 20.50 | 0.750 | 1.000 | 143T | 184T | 229 | 299 |
| 135 | 45.13 | 20.25 | 22.38 | 27.63 | 25.00 | 23.50 x 23.50 | 0.750 | 1.000 | 145T | 184T | 262 | 342 |
| 150 | 46.13 | 20.25 | 23.38 | 27.63 | 26.00 | 24.50 x 24.50 | 0.750 | 1.000 | 184T | 215T | 280 | 355 |
| 165 | 48.88 | 22.00 | 24.38 | 31.00 | 28.00 | 26.50 x 26.50 | 0.750 | 1.188 | 184T | 215T | 363 | 378 |
| 182 | 56.13 | 25.25 | 28.38 | 37.13 | 34.00 | 32.50 x 32.50 | 1.000 | 1.188 | 184T | 215T | 474 | 530 |
| 200 | 60.88 | 27.00 | 31.38 | 40.38 | 37.00 | 35.50 x 35.50 | 1.000 | 1.438 | 215T | 215T | 531 | 592 |
| 222 | 64.63 | 28.75 | 33.38 | 43.38 | 40.00 | 38.50 x 38.50 | 1.000 | 1.438 | 215T | 215T | 645 | 730 |
| 245 | 69.13 | 30.25 | 36.38 | 46.00 | 43.00 | 41.50 x 41.50 | 1.000 | 1.438 | 215T | 256T | 760 | 845 |
| 270 | 73.88 | 32.00 | 39.38 | 49.63 | 47.00 | 45.50 x 45.50 | 1.188 | 1.438 | 215T | 256T | 857 | 1024 |
| 300 | 80.88 | 35.00 | 43.38 | 55.63 | 52.00 | 50.50 x 50.50 | 1.188 | 1.688 | 215T | 284T | 1092 | 1225 |
| 330 | 87.38 | 36.50 | 48.38 | 59.63 | 55.00 | 53.50 x 53.50 | 1.438 | 1.938 | 215T | 284T | 1316 | 1460 |
| 365 | 92.88 | 38.50 | 51.88 | 62.25 | 58.00 | 56.50 x 56.50 | 1.438 | 2.188 | 256T | 286T | 1478 | 1598 |
| 402 | 99.88 | 42.00 | 55.38 | 68.25 | 64.00 | 62.50 x 62.50 | 1.688 | 2.438 | 256T | 286T | 1670 | 1891 |
| 445 | 108.63 | 46.75 | 59.38 | 73.25 | 70.00 | 68.50 x 68.50 | 1.938 | 2.438 | 284T | 324T | 2048 | 2208 |
| 490 | 115.13 | 49.75 | 62.88 | 79.25 | 76.00 | 74.50 x 74.50 | 2.188 | 2.438 | 284T | 326T | 2294 | 2674 |

D4215-1

Dimensions shown are in inches unless otherwise indicated.

Dimensions are not to be used for construction.

NOTES:

1. Outside dimensions of roof curb should be 1" to 1.50" less than inside curb base dimension 'E', depending on thickness of flashing material used.
2. Roof opening is 7.50" less than curb base 'E'.

Tubular Centrifugal Inline fans shall be belt driven model TCLB (standard inline centrifugal), model TCLBR (restaurant) as manufactured by Twin City Fan, Minneapolis, Minnesota.

PERFORMANCE — Performance ratings shall conform to AMCA Standard 205 (fan efficiency grade), 211 (air performance) and 311 (sound performance). Fans shall be tested in accordance with ANSI/AMCA Standard 210 (air performance) and 300 (sound performance) in an AMCA accredited laboratory. Fans shall be licensed to bear the AMCA certified ratings seal for both sound and air, and fan efficiency grade (FEG).

Model TCLB shall be UL 705 listed. Model TCLBR shall be UL 762 listed for the exhaust of grease-laden air. Fans shall bear a permanently attached nameplate displaying model and serial number of the unit for future identification.

CONSTRUCTION — Housings shall be constructed of heavy gauge, continuously welded steel to prevent air leakage. Housings shall include punched inlet and outlet flanges for duct mounting. Motor and bearing supports shall be constructed of heavy gauge steel and shall be suitably braced to prevent vibration and pulsation. Extended lube lines shall be supplied as standard for lubrication of the fan bearings without fan disassembly. Model TCLBR shall include a 2" drain and two wheel cleanout doors (located 180° apart) for the inspection and maintenance of the wheel.

WHEEL — Fan wheels shall be of the non-overloading centrifugal backward inclined type and containing a matching inlet venturi for optimum unit performance. Sizes 270 and smaller shall be constructed of aluminum. Sizes 300 and larger shall be constructed of steel. Wheels shall be statically and dynamically balanced.

SHAFT — Fan shafts shall be precision ground and polished. Shafts shall have a first critical speed of at least 125% of the fan's maximum operating speed.

BEARINGS — Bearings shall be of the one-piece, self-aligning, pillow block type with relubricable zerk fittings. Bearings shall be designed for air handling service with a minimum L-10 life in excess of 80,000 hours; L-50 life in excess of 400,000 hours at the maximum cataloged operating speed.

DRIVE — Drives shall be sized for a minimum of 150% of driven horsepower. Machined, cast iron motor sheaves shall be adjustable through 20 HP for final system balancing. 25 HP and larger are fixed pitch.

MOTOR — Motors shall be of the heavy-duty ball bearing type, closely matched to the fan load and provided at the voltage, hertz, and enclosure as provided on the fan schedule. Motor adjustment shall allow precise belt tensioning for optimum belt life and one-person adjustment and servicing.

FINISH AND COATING — The entire fan assembly, excluding the shaft, shall be thoroughly degreased and deburred before application of a rust-preventative primer. After the fan is completely assembled, a finish coat of enamel paint shall be applied to the entire assembly. The fan shaft shall be coated with a petroleum-based rust protectant. Aluminum components shall be unpainted.

ACCESSORIES — When specified, accessories such as bolted and hinged access doors, belt guard, motor cover, inlet and outlet guard, companion flanges, type B spark resistant construction, aluminum construction, inspection section, inlet vanes, vibration isolators, and special coatings shall be provided by Twin City Fan to maintain one source responsibility.

FACTORY RUN TEST — All fans prior to shipment shall be completely assembled and test run as a unit at operating speed or maximum RPM allowed for the particular construction type. Each wheel shall be statically and dynamically balanced in accordance with ANSI/AMCA 204-96 "Balance Quality and Vibration Levels for Fans" to Fan Application Category BV-3, Balance Quality Grade G6.3. Balance readings shall be taken by electronic type equipment in the axial, vertical, and horizontal directions on each of the bearings. Records shall be maintained and a written copy shall be available upon request.

GUARANTEE — The manufacturer shall guarantee the workmanship and materials for its TCLB, TCLBR Tubular Centrifugal Fans for at least one (1) year from startup or eighteen (18) months from ship date.

INDUSTRIAL & COMMERCIAL FANS

Centrifugal Fans | Utility Sets | Plenum & Plug Fans | Inline Centrifugal Fans

Mixed Flow Fans | Tubeaxial & Vaneaxial Fans | Propeller Wall Fans | Propeller Roof Ventilators

Centrifugal Roof & Wall Exhausters | Ceiling Ventilators | Gravity Ventilators | Duct Blowers

Radial Bladed Fans | Radial Tip Fans | High Efficiency Industrial Fans | Pressure Blowers

Laboratory Exhaust Fans | Filtered Supply Fans | Mancoolers | Fiberglass Fans | Custom Fans



A Twin City Fan Company

TWIN CITY FAN & BLOWER | WWW.TCF.COM

5959 Trenton Lane N | Minneapolis, MN 55442 | Phone: 763-551-7600 | Fax: 763-551-7601